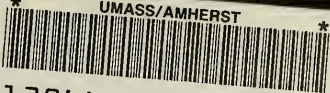


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GIFT OF
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SIXTY-SECOND ANNUAL REPORT

OF THE

BOARD OF EDUCATION:

TOGETHER WITH THE

SIXTY-SECOND ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD,

1897-1898.

JANUARY, 1899.

BOSTON:

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
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1899.

GENERAL ZEREN
FORMATION
OF THE COAST

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STATE BOARD OF EDUCATION.

1899.

EX OFFICIIS.

HIS EXCELLENCY ROGER WOLCOTT, *Governor.*

HIS HONOR W. MURRAY CRANE, *Lieutenant-Governor.*

BY APPOINTMENT.

ELMER H. CAPEN,	Somerville,	May 25, 1899.
ELIJAH B. STODDARD,	Worcester,	May 25, 1900.
GEORGE H. CONLEY,	Brookline,	May 25, 1901.
ALICE FREEMAN PALMER,	Cambridge,	May 25, 1902.
JOEL D. MILLER,	Leominster,	May 25, 1903.
KATE GANNETT WELLS,	Boston,	May 25, 1904.
FRANKLIN CARTER,	Williamstown,	May 25, 1905.
GEORGE I. ALDRICH,	Newtonville,	May 25, 1906.

SECRETARY.

FRANK A. HILL, *Cambridge.*

CLERK AND TREASURER.


C. B. TILLINGHAST, *Boston.*

AGENTS.

JOHN T. PRINCE,	West Newton.
G. T. FLETCHER,	Northampton.
JAMES W. MACDONALD,	Stoneham.

AGENTS FOR THE PROMOTION OF INDUSTRIAL DRAWING.

HENRY T. BAILEY,	North Scituate.
L. WALTER SARGENT,	Assistant for Western Counties, North Grafton.



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ANNUAL REPORT

OF THE

BOARD OF EDUCATION.

ANNUAL REPORT.

The Board of Education has the honor to submit to the Legislature its sixty-second annual report.

The Board was created to have general supervision of the whole subject of public education. This it may do, however, only by observation and inquiry, disseminating information and seeking to arouse and guide public sentiment respecting schools, schooling and the methods, scope and purpose of education. It has no authority except to see that the laws concerning education are faithfully carried out. This, it may be said, is a wide field, and there can be no doubt that the influence exerted by the Board during the sixty and more years of its existence has been incalculably beneficent. In the work it has accomplished, through its secretary, agents and other instrumentalities, in arousing the people to a sense of the importance of regular and systematic instruction, in teaching them how to secure the best results by the most economical outlay, in putting high ideals before the popular mind, in giving diversity to educational effort, in leading the way as occasion has demanded into new paths of educational enterprise, and in setting before both teachers and pupils high standards of attainment, it has fully justified its existence and more than repaid the outlay made for its maintenance.

Authority has been given the Board occasionally to do specific things, such as placing deaf children in schools designated for their instruction, and, with the approval of the Governor, providing for the expense of their education and support, distributing the income of the school fund, and exercising oversight and control of the normal schools. In regard to the latter the authority of the Board is complete, except that the Legislature must make the appropriations for the annual expenditures in the support of such schools. It must also give authority for

the establishment of new schools and determine their location. Other duties from time to time may be entrusted to the Board by the Legislature. It is, however, an unpaid commission. The members cheerfully give their services without compensation. During ten months in the year regular meetings are held monthly, and special meetings are called whenever any exigency arises demanding the deliberations of the Board. But this indicates only a small portion of the time given to the work by every member. By the division and subdivision of the work in committees, each individual is called upon to give a large amount of time and effort to carrying out the various details involved in the duties entrusted to the Board. The membership is made up, however, of busy people. There is a limit to the time which they can give to the Commonwealth. Not even their great interest in the education of the children of the State and their desire to secure the best results which the most recent consideration of school problems has put within the range of possible accomplishment can enable them to perform in person all the requirements of their important service. They are obliged to turn over a large portion of their duties to such compensated officers as the Legislature has authorized them to appoint, namely, the secretary and the agents.

A general outline of what has been accomplished during the past year will be seen by an examination of the documents herewith transmitted. These embody (1) specific reports of the normal schools, (2) the report of the secretary of the Board, (3) the reports of the agents of the Board in detail, (4) certain general educational matter believed to be of interest to the public, and (5) the statistical returns gathered and tabulated through the office of the secretary.

NORMAL SCHOOLS.

The Commonwealth has made noteworthy progress in securing specific preparation for its teachers. There are those still living who can remember how earnestly Horace Mann, almost alone, pleaded for the establishment of one normal school, and with what difficulty and reluctance the Legislature of that period was induced to grant the needed support. Perhaps with a chief executive less enlightened than Edward Everett to

second the demand, the event might have been postponed to a later time. But the principle, once recognized, has had a steady and progressive development. For many years the normal schools have held a creditable place in our educational system. For a considerable time five such schools, namely, the schools at Bridgewater, Salem, Framingham, Westfield and Worcester, to which perhaps should be added the Normal Art School at Boston, were thought sufficient to furnish such professional training as was demanded by the State for its teachers. But in the year 1894 the Legislature deemed that the number was not sufficient, and ordered the establishment of four more, thus nearly doubling the facilities of the State in this respect. The new buildings at Fitchburg, North Adams, Lowell and Hyannis are now all completed, and for the first time during the past year the schools in these respective localities have been in complete and full operation. That the Legislature reasoned correctly in regard to the public need of an ampler provision for normal training, the following figures will show. The whole number of pupils in the normal schools in the year 1893-94, the year in which the new normal schools were ordered, was 1,225. They were distributed as follows: Bridgewater, 242; Salem, 215; Framingham, 141; Westfield, 161; Worcester, 213; Normal Art, 253. For 1894-95 the total number was 1,267; for 1895-96, 1,123; for 1896-97, 1,112; for 1897-98, 1,450; Nov. 1, 1898, 1,572. The number Nov. 1, 1898, was distributed as follows: Bridgewater, 277; Salem, 176; Framingham, 152; Westfield, 112; Worcester, 188; Fitchburg, 95; North Adams, 97; Lowell, 137; Hyannis, 54; Normal Art, 284.

It should be observed, in connection with this increase in the total number of pupils who are seeking a higher preparation for teaching through the instrumentalities thus provided, that the standard of admission to these schools has been materially advanced. An education equivalent to that given in the better high schools of the Commonwealth is required of every pupil as a condition of admission. It will be seen that the normal schools are in a better position to carry out the theory on which they are based, namely, that they are not for academic but professional training, than ever before. Moreover, this

step has dignified them, putting them, so far as the beginning of their work is concerned, on a par nearly with the colleges. My own belief is that one further step is needed to enable them to meet the full demands which may be made legitimately upon the educated teacher of to-day, and that is, the addition of another year to the normal school course as the condition of graduation. I think this is essential not only to place the teachers' training school fairly alongside the other professional schools, but to give space for the acquisition of the things that are fundamental in the teacher's art. For myself, I should hope that the time is not far distant when the course of study will be thus lengthened.

SUMMER NORMAL SCHOOL AT HYANNIS.

Last summer for the first time in our educational history the experiment of a summer normal school was tried. The Legislature set apart \$2,500 for the purpose. The normal school at Barnstable, in the village of Hyannis, was selected for the work. The aim is to furnish normal instruction of a somewhat intensive character for such teachers already in the service as feel the need of it and are willing to devote five weeks of their long vacation to the work.

The plan thus far has proved highly successful. One hundred and twenty teachers, representing all parts of the State, enrolled themselves as pupils, the majority announcing their intention to work for a diploma.

The school can readily be made to reach double the number of such teachers with but slight additional expenditure. Its continued support is earnestly commended to the Legislature. For details of the school, the report of the Board of Visitors for the school should be consulted.

THE SECRETARY.

A single glance at the report of the secretary will suffice to show the magnitude of the work entrusted to him. The Commonwealth is his field. His eye must behold every nook and corner of it, from the Berkshire hills to the Cape Cod sands, from the humblest edifice in some remote spot, where population is sparse and wealth scanty, to the palatial and sumptuous

temples of learning which almost unlimited resources have provided in the great cities; and he must be prepared to give out of the abundance of his own wisdom the counsel that is required of a leader in this most progressive time and in a Commonwealth that has never lagged behind in the educational movements of the age. It is fortunate for these great interests that the duties of the office have fallen upon one who in industry, training, experience, profound study of the problems of education, energy, devotion, enthusiasm and high ideals has scarcely been surpassed by any of his predecessors. The real pity is that so much work should be laid upon the shoulders of one man. The duty of providing adequate assistance for the secretary's office ought not to be any longer delayed. Not only is there need of additional help in the office itself, but there should be some one to whom the secretary could assign a portion of the work that now devolves upon him from the outside. At present there are employed two clerks, each of whom is a stenographer and typewriter; also a messenger. One of these clerks is engaged the year round on the statistics that furnish the basis of the annual report of the Board. The correspondence of the office mainly falls to the other. The secretary's work includes the giving of educational addresses, the demand for which is constantly increasing; the dictation of letters of information and advice, — from two to three thousand a year in addition to such letters as the clerks may prepare without dictation; the giving of information in numerous personal interviews; the preparation of his own annual report and the supervision of all that goes into the annual report of the Board; the visitation of the normal schools, which have recently been increased from six to ten; and the preparation twice a year of the entrance examination questions, — work that has assumed a larger magnitude and importance since the adoption of the new normal school policy; and the approval of certificates that furnish the basis for payment of money by the State to reimburse certain towns for their expenditures for (*a*) high school tuition, (*b*) increasing the salaries of certain teachers, and (*c*) the salaries in part of district superintendents. This latter work involves numerous directions, much correspondence and constant watchfulness. It is all of recent requirement.

There is also a variety of miscellaneous duties not specifically enjoined by law, but which cannot be declined, from their very nature, by the secretary. There are some duties, moreover, imposed by law, which have not yet received the attention they deserve, from the sheer inability of the secretary to increase his burdens. For instance, the law for the State examination and certification of teachers, and the law requiring an annual report on private schools. These numerous and diversified duties confine the secretary more and more to his desk, give him too much the character of a clerk, and hinder him from the larger educational work in the normal schools and throughout the State which his official position and personal qualifications fit him to perform. It is important that the secretary should perform all the duty that he can; but, in view of the increasing demands of the office, the interests of the State demand that adequate assistance should be given to him. There should be some person capable of taking the secretary's place at the office, and of doing such work as the secretary, whether present or absent, may divide with him.

THE AGENTS.

A careful perusal of the specific reports of the agents will be instructive, not only because of the subject matter with which they deal, but as showing the nature and scope of their work. Educational conditions have greatly changed since the first appointment of agents. Then there was need in nearly every part of the Commonwealth of the missionary to preach the gospel of education and to arouse the people to a sense of their responsibility in regard to it. No doubt a considerable part of the improvements that have been made, in the abolition of the old district system and making the schools the care of the entire municipality, in securing a more orderly arrangement of classes and studies, in purging and elevating the curriculums, in raising the qualifications of teachers, in dispelling popular errors concerning the proper functions of teachers and schools, in getting recognition of the principle of superintendence, and in elevating the tone of the public schools and improving the methods of instruction, is due to their indefatigable and patient efforts.

It may be thought that, since superintendence has become well-nigh universal in the Commonwealth, and since the interest of the people in education has been so generally aroused, there is no longer an imperative call for the services of the agent, except perhaps in the most rural districts. Such, however, is not the opinion of this Board. The agents are still needed for various purposes. Not a little of the old work is still to be done, though it may be done in a somewhat different way. The people still need enlightenment and quickening, and the person who is properly qualified for the work can accomplish much in kindling the fire which is essential to light and warm and guide. Moreover, the time has come, as it seems to the writer, when the principle of specialization can be, to a material degree, applied in determining the duties of agents. While it may be important to retain at least two persons to occupy the general field, it is important that there should be one person detailed to look after truancy and the statistics of school attendance. The Board has in the past earnestly advocated the appointment of a State attendance officer. One was provided for in the school attendance bill before the last Legislature, but the provision was stricken out, for some reason, just before the bill became a law.

There should also be an agent who should devote himself exclusively to the inspection of high schools, — a specialist in secondary education; and an agent who should give his entire time to the inspection of the ten normal schools, and to such inspection might be added, at least for the present, the State examination of teachers. In the normal schools proper there are 106 teachers and in the practice schools associated with them 90 more. A district superintendent is believed to have his hands full if he supervises from 25 to 50 teachers. It is apparent that it is utterly impossible for the secretary, with the multiplicity of his other duties, to give these teachers proper attention, but it is equally apparent that the work is of sufficient importance and magnitude to command the best energy of a specialist and expert in the training of teachers. Of course it is wholly out of the question to dispense with the one agent, who, with his assistant, has charge of the subject of drawing. Thus at least six agents and one assistant are imper-

atively needed if the duties imposed upon the Board are to be carried out with anything like the efficiency which has characterized it hitherto.

INSTITUTES.

The usual day institutes have been held, with great profit to the teachers. The summer institutes at Laurel Park and at Salem are meeting the needs and wants of teachers so well that they should receive all encouragement from the State. It is forbidden under the law to expend more than \$350 on one institute. This sum, however, is not enough for a summer institute a week long. At Salem the teachers for two years past have made good such sums as have been needed after the State appropriation has been exhausted. Would it not be wise for the Legislature to appropriate a larger sum — at least \$500 additional — to each of these summer institutes? Some years ago the State appropriated \$3,000 for institutes. Of late years it has appropriated but \$2,000.

STATISTICS.

A perusal of the statistical tables accompanying this report, or of the secretary's summary, is fruitful of almost endless suggestion. In this way we may get some conception, however faint and indefinite, of the enormous extent of the field which the educational work of a great Commonwealth covers, the vast outlay which the people with marvellous cheerfulness are making annually for the maintenance of schools of every grade, of the remarkable development that has been attained both in the degree and the quality of instruction, and of the immense variety which already appears in subjects and courses of study.

The number of persons that fall within the scope of public instruction attest that the State is small only in area. The whole number of children between five and fifteen on the first day of May, 1897, was 441,352, — an increase over the former year of 9,965, and an increase since the report of 1890 of 71,236. The whole number of pupils of all ages in the public schools is, 456,141, — an increase over last year of 16,774, and an increase from 1890 of 84,649. The average membership of pupils in all the public schools during the past year is 378,770, — an increase over last year of 14,904, and an increase

since 1890 of 75,246. The average daily attendance for the year has been 349,147, — an increase over last year of 14,202, and an increase since 1890 of 75,237. The percentage of attendance based on the average membership has been 92, having risen 2 per cent. since 1890. These pupils are distributed through 9,863 schools, taking a single class-room as the unit of computation, or 4,616 if the unit selected is a single school which has one head or principal.

Surely this is a vast army of youth, which, through a mighty and complicated mechanism, is receiving its preparation for the duties and responsibilities of citizenship. In the hearts of these children lies imbedded the Commonwealth of the next generation. Upon the ability and fidelity of the teachers, their fitness for their work and the degree of their conscientious performance, depend in great measure the character and quality of American manhood and womanhood, upon which must soon devolve the active management of affairs, domestic, social and political. Is it at all wonderful that, in view of these facts, the wisest of our statesmen, philosophers and educators have regarded the public school as the corner-stone of the republic? Do we not find here, also, the key to that readiness with which the people have subjected themselves to a taxation which in its totality is stupendous?

Let us look for a moment at some of the elements of cost. The whole amount returned as expended upon the public schools, including repairs, new construction, voluntary contributions, surplus revenue, etc., is \$13,653,649.63. This is equal to \$30.93 for each person between five and fifteen, or \$36.04 for each child on the average membership of the public schools. If we exclude everything relating to buildings and equipment as well as everything from other sources than taxation, we still find that the whole amount expended for wages and board of teachers, transportation of pupils, fuel and care of fires and school-rooms, is \$8,292,320.12. To this should be added for books, stationery and school supplies, together with sundries which cannot be classified otherwise, \$928,355.53; also the expense of supervision, \$333,131.99; making the total expended from the proceeds of taxation \$9,553,807.64. This is more than \$25 per pupil of the average membership in all the public schools during the year.

Here is a result in which every citizen of Massachusetts may feel a just pride. It is significant in many ways, but chiefly, perhaps, as showing the value which the people put upon educational privileges. This view, however, furnishes no ground for a complacent satisfaction with our present achievement, but rather it is the highest incentive to press forward towards perfection. Having done so much, we ought not to rest contented until we have brought the schools to the highest proficiency.

THE ENRICHMENT OF PROGRAMS IN THE LOWER GRADES OF THE PUBLIC SCHOOLS.

The public school embraces every grade, from the primary to the high school. As to the grades below the high school, there has been, and still is, not a little criticism, because of the distracting variety of subjects that have found their way into them from time to time. When, therefore, those who are interested in educational reform suggested an enrichment of the school programs, there was a fierce outcry against what appeared to be an attempt to burden still further those courses of elementary instruction which were already loaded almost to the breaking point. Those whose apprehension was thus aroused totally misconceived the nature of the proposed modification. Enrichment is not concerned wholly with putting in new subjects; it is quite as much interested in taking out the useless and vicious. Indeed, the very first step in the process of enrichment consists in removing the rubbish, which embraces not only the things that have been imported, but the things which through long custom have either been distorted out of their true proportions or have come to be taught in a wrong way. Reform, therefore, must begin with pruning; after that there should be found room for the things that are necessary to a true education.

In all this business it should be borne in mind that at present seventy-five per cent. of the pupils of the public schools do not pass from the lower grades to the high school; the majority do not even reach the ninth grade of the grammar school. Every such pupil has a right to demand of the State, as he has a right to demand education at all, that he shall have the education

which is the best possible to fit him for the sphere in life which he will be called upon to fill. It hardly requires argument, therefore, to show that many things which have been postponed until the later stages should have a place, at least in their elementary phases, in the earlier stages. For example, there is no reason why all mathematical instruction should be confined to arithmetic, when the elements of both algebra and geometry might with far greater propriety be taught, in place of a portion of the arithmetical gymnastics through which the pupils from immemorial time have been put. Neither is there reason or justice in postponing until the high school period the opportunity to make a beginning with a foreign language. What are called nature studies have already found a place in the school curriculum, and they are likely to remain there, giving proper emphasis to the observational method which holds so important a place in modern education. Manual training, too, which has demonstrated its right to stand among the great educational instrumentalities, should not be reserved for those only who have been able to hold on through all the elementary grades, but should be given also, to some extent, to those who are compelled to face the stress of life at an earlier point. The Board of Education, through the secretary and agents, has done what it could, by furnishing sample programmes and otherwise seeking to arouse and guide public sentiment, to improve and enrich the courses of study in all the grades of the public schools.

HIGH SCHOOLS.

There is no part of the public school system in which the Commonwealth may find greater satisfaction than in the enormous development of her high schools. Of these there are now 261; and, by act of the Legislature passed in 1891, every town is obliged to provide free tuition in some high school, either its own or that of some other town, for all pupils who desire under proper conditions to receive that grade of instruction. The whole number of high school pupils returned is 38,133, — an increase over 1897 of 1,845. Of this number, 28,391 are in the larger schools whose average membership is 200. Nearly 6,000 are in schools the membership of which is above 50. It

will be seen, therefore, that the great body of high school pupils are in schools for the most part of generous equipment in teaching force, housing and other facilities. The result, too, has been reached with almost startling rapidity. For example, in 1852 there were only 64 high schools in the State. In 1866, a period of fourteen years, the number had risen to 156, considerably more than double that of 1852. Ten years later, or in 1876, the number was 216, and to-day, as has just been said, it is 261.

The original intention of the high school was to furnish preparation for college in the requirements, mainly, of Latin, Greek and mathematics. The people, however, who have provided the money for the maintenance of the high school, and whose children were to be educated in it, have not been content that it should occupy so restricted a field. Accordingly its courses have been given a great variety and breadth, disregarding altogether to what those courses in the majority of cases might lead. Indeed, it was hardly thought that they would or could lead to anything beyond.

Technically considered, the colleges constitute no part of the system of public education. They are private institutions, depending mainly on the endowment which has been given by generous individuals. It was not strange, therefore, that they should continue to set their standards, guided wholly by their own *a priori* conception of the nature and function of the higher learning. Latterly, however, a change is apparent in the opinions and attitude of the governors of our colleges. They are beginning to see that the children of the Commonwealth are their proper constituency. Though in a sense the colleges may be private, yet in a higher sense they are public. Their work, at least, is a public work. By their own assumption they are seeking to furnish the training for those who are to be the leaders and guides of the public. Hence they are under a responsibility if they are to retain the confidence of the public to frame their courses somewhat with reference to the demands of the popular judgment. To secure for the high schools the highest utility, at least two things are essential. First, their programs should be carefully scrutinized, and everything that savors of superficiality or frivolity should be rigidly excluded.

In other words, these programs should be made up of substantial things to be studied in a substantial way, so that a broad and thorough foundation may be furnished to every student graduating from the high school for a further advance along the higher ranges of education. In the second place, the colleges should meet the high schools with the utmost frankness and cordiality. They should shape their own programs to meet the varied programs of the high school. They should stand ready to take the graduates of the high school, from whatever department, who have done their work thoroughly, and give them that higher and more liberal training for which they are prepared, and which every child of the State so prepared has a right to demand. In no other way can they justify the great favor which the Commonwealth has bestowed upon them in extending to them the exclusive privilege of giving the higher education. It is but just to say that in the effort to bring the colleges and high schools together, so that our system of education, beginning with the primary school and ending with the university, may be one, harmonious and even organic throughout, no one has done more than our intelligent and efficient secretary.

EVENING SCHOOLS.

Another instrumentality which deserves mention in this report is the evening school. The opportunity to acquire the rudiments of learning and in some instances to pursue subjects of the high school grade, for those who are compelled to labor during the day time for their support, is certainly a great boon. So long as such an institution exists, no one is doomed to the darkness of ignorance, nor even restrained from making some progress in formal training under competent teachers. There is no surer index of the care which the community takes to promote the higher interests of its members. The more there are of such institutions, especially in the centres where population is crowded, the less demand there will be for the policeman and the jail, and the more the people will grow in self-respect and noble ambition. It is instructive alike to the legislator and the private citizen to contemplate the good that has been accomplished by this means. Many men of high standing before the public, men who are accounted leaders of

the people, are indebted almost wholly for whatever they have received of positive training to the provision which has been made so widely for the opening of the door of the school-house in the evening. It appears from the returns that there are 740 evening schools in 52 cities and towns, employing 1,262 teachers and giving instruction to 32,418 pupils. Though the expenditure under this head was \$198,666.43, it is doubtful if any outlay in the Commonwealth can be better justified, or is sure to yield a nobler return in the efficiency, intelligence and virtue of the inhabitants.

EDUCATION OF DEAF MUTES.

The Legislature in 1888 enacted that, "upon the request of the parents or guardians and with the approval of the State Board of Education, the Governor may send such deaf mutes or deaf children as he may deem fit subjects for education, for a term not exceeding ten years in the case of any pupil, to the American School for the Deaf at Hartford in the State of Connecticut, the Clarke School for the Deaf at Northampton, the Horace Mann School for the Deaf at Boston, or to any other school for deaf mutes in the Commonwealth, as the parents or guardians may prefer. . . . In the exercise of the discretionary power conferred by this act, no distinction shall be made on account of the wealth or poverty of the parents or guardians of such children; no such pupil shall be withdrawn from such institutions or schools except with the consent of the proper authorities thereof or of the Governor; and the sums necessary for the instruction and support of such pupils in such institutions or schools, including all travelling expenses of such pupils attending such institutions or schools, whether daily or otherwise, shall be paid by the Commonwealth." From these provisions it is evident that the Legislature recognized that it is the obligation of the State to educate its deaf-mute children, as well as those whose faculties are normal; and that, too, irrespective of their poverty or wealth. The provision is not a charity but a duty.

There are to-day 312 pupils maintained at the expense of the State, namely, at Hartford, 66; at Northampton, 121; at the Horace Mann School, 115, and at the Sarah Fuller Home in

Medford, 10. The sum paid for pupils at Hartford and Northampton is \$200 annually for each one. This includes compensation for both board and instruction. For those in the Horace Mann School the sum paid is \$100 for each Boston pupil and \$105 for each pupil outside of Boston. The authorities of the city have applied for an increase of compensation, on the ground that these sums do not cover the outlay actually made by the city for the education of each pupil. The Board of Education is inclined to accede in part to the demand of the city of Boston, although the sum expended is greater in proportion than that paid to the other institutions, on the ground, first, that the cost of education is greater in Boston than in the other places; and, secondly, that there is some advantage for some children, at least, in being taught in a day school rather than in an institution, where they are deprived of the influences of a home. On investigation it may be found that the sums allowed to some of the other schools ought to be increased.

SCHOOL LEGISLATION.

The school legislation of 1898 has crystallized into law some features of the advancing educational sentiment of Massachusetts. The following matters may be specified: (1) the minimum length of schooling has been raised from six months to eight months; (2) the law relating to the employment of children at labor has been simplified and strengthened; (3) the high school requirements for the State have been more fully and specifically defined; and (4) the truancy laws have been simplified and improved in various ways, not the least of which is the abandonment of the old and vexatious system of by-laws.

Some things are still needed in the way of legislation for increasing the efficiency of the schools. The State control of the truant schools should receive further attention at the hands of the Legislature. The appointment of a State attendance officer would tend to increase the efficiency of the local truant officers in enforcing the compulsory attendance laws. It would be well if such officer could be an agent of the Board. The legislation of 1898 provides for certain changes in keeping the school register, and puts upon this Board the duty of furnishing census blanks to the several towns and cities, for the pur-

pose of securing uniformity and thoroughness in taking the school census. The State register in use at present is unsatisfactory. It is paid for out of the incidental appropriation for the secretary's office. A creditable form of register requires more money than the office has at its disposal. A special appropriation, therefore, is desired, to provide a register worthy of the State, and census blanks as required by law.

CERTIFICATION OF TEACHERS.

No more important step in the direction of securing higher attainment and greater uniformity in the qualifications of public school teachers has been taken than the provision for their examination and certification by this Board. But as yet it has not been possible to accomplish anything of practical value, on account of the lack of an appropriation sufficient to meet the expenses of conducting such examinations on a creditable basis, and for the lack of the officer or officers who could be entrusted with the supervision of the work. An examination, to be worth anything, should correspond to the ideals which the State is supposed to cherish in such matters. It should have seriousness, scope and dignity. The certificate should mean something when received by the intending teacher. In no other way will the examination or the certificate be of service to the schools of the Commonwealth. The whole matter, therefore, needs to be put upon a generous and permanent basis. Provision should be made, as it seems to the writer of this report, for the full time of an experienced examiner-in-chief, especially if the State should enter upon the policy, as it ought and as the Board has from time to time advised, of requiring on the part of every new teacher who may be appointed after a given date, some minimum of professional preparation for his work. The Board should have authority to employ from time to time, as the exigencies may require, assistant examiners. The examiner-in-chief should receive a fixed salary, and the assistants should receive compensation for such services as they render. Probably at the outset the office of examiner-in-chief and that of inspector of the normal schools could be united in one person, who should, of course, be an agent of the Board. The importance of the subject and

the magnitude of the work merit the careful consideration of the Legislature.

THE PARIS EXPOSITION.

In the arrangement which the Legislature may make for the representation of this Commonwealth in the International Exposition to be held in Paris in the year 1900, the interests of education should not be overlooked. The plans for the educational exhibit of the United States have not yet been formulated. Whether there shall be one exhibit for the United States as a whole or whether opportunity shall be given for individual States is still undetermined. But whatever course shall be chosen, it must not be forgotten that Massachusetts has something to show in the way of educational progress and achievement, without which no exhibit of the educational work of the country would be complete. Provision should therefore be made, in any appropriation for the State, that this important interest may have adequate representation. It might even be desirable that some person should be delegated to observe and study what other States and countries may have to display that would be instructive to the teachers and other educational workers of this Commonwealth.

THE EQUALIZATION OF EDUCATIONAL PRIVILEGE.

A careful survey of the accomplishments of the last thirty years will convince any observer that a great levelling process has been going on. While there has been an immense impulse in all the more fortunate sections of the State pushing the people forward and urging them ever to greater and nobler results in both the instruments and the substance of learning, there has been even in the less fortunate portions of the community if possible a fiercer ardor, impelling them to make the utmost effort not to be left behind in the race for a true ideal and a perfect method. Indeed, it is amazing to what sacrifices the people have been moved in all ranks and places, and how much has been done to secure high grade instruments and a genuine performance in education. The aim has been if possible to reach a uniform standard of excellence. Still, there are great differences; and these differences must continue under the existing

system of support. So long as the responsibility for furnishing educational facilities rests with the individual municipality, it will inevitably follow that the poorer as well as the less enlightened towns will continue to provide inferior and ordinary school privileges. Here, then, is the point for a great reform. To the undersigned it seems that if education is the duty of the State, that duty is not discharged until all the children have an equal privilege. In a great city like Boston the children of the poorer sections have as good facilities and as good teachers as the children of the rich and fashionable quarters. The North End and the West End are on the same plane; Charlestown and East Boston, South Boston and Dorchester are treated as nearly alike as possible. Why should not this principle extend to the entire Commonwealth? Some one will say, "Because that would be interfering with the principle of local self-government." But that argument was exploded when the old district system was abolished. The taxable property of the State would undoubtedly object. It always objects when it is called upon to meet a new expenditure for the public good. But there is no reason why the property of the State, which receives the highest benefits from the education of the people, should not contribute as far as possible to make it equal to all, precisely as for similar reasons within the range of the benefits conferred it contributes for state highways, parks, metropolitan sewerage and water works. The true statesman must look this question in the face, and when he shall consent to give it careful and profound study, he will see to it that Berkshire and Hampshire shall not be separated by a great gulf from Middlesex and Suffolk.

CONCLUSION.

In the preparation of this report for the Board of Education, it is sufficiently indicated in connection with the recommendations made therein which ones are rather the personal expressions of the undersigned, based on the results of his study and observation during ten years of service on the Board, and which are the convictions of the Board as a whole, as expressed from time to time in its official action.

ELMER H. CAPEN,
for the Board of Education.

REPORTS
OF THE
BOARDS OF VISITORS
OF THE
NORMAL SCHOOLS.

STATE NORMAL SCHOOL, BRIDGEWATER.

ALBERT G. BOYDEN, PRINCIPAL.

INSTRUCTORS.

ALBERT GARDNER BOYDEN, A.M., educational study of man, including the study of the body, the mind, the principles and the art of teaching, school organization, school government, school laws of Massachusetts and the history of education; ARTHUR CLARKE BOYDEN, A.M., Vice-Principal, natural science, history and civil polity; FRANZ HEINRICH KIRMAYER, Ph.D., Latin, Greek, French, German; WILLIAM DUNHAM JACKSON, physical science, mathematics, English literature; CHARLES PETER SINNOTT, B.S., geography, physiology and hygiene, physical science; HARLAN PAGE SHAW, chemistry, mineralogy, industrial laboratory; FRANK ELLIS GURNEY, classics, book-keeping, astronomy; ISABELLA SARA HORNE, vocal culture and reading; CLARA COFFIN PRINCE, vocal music, algebra, geometry; FANNY AMANDA COMSTOCK, arithmetic, rhetoric, botany; EMILY CURTIS FISHER, English, grammar, geometry; ELIZABETH HELEN PERRY, drawing; LILLIE EVELINE MERRITT, assistant in drawing; BESSIE LOUISE BARNES, physiology and hygiene, physical training.

Model School: LILLIAN ANDERSON HICKS, Principal; ADELAIDE REED, Grade 9; MARTHA MAY BURNELL, Grade 8; HANNAH ELIZABETH TURNER, Grade 7; NELLIE MABEL BENNETT, Grade 6; JENNIE BENNETT, Grade 5; MARY LUCINDA WALLACE, Grade 4; SARAH WHEATON TURNER, Grade 3; SARAH ELLEN PRATT, Grade 2; FLORA MAY STUART, Grade 1.

Kindergarten: ANNE MORGAN WELLS, Principal; FRANCES PLYMPTON KEYES, Assistant.

The fifty-eighth year of this school has been marked by the admission of the largest class, the largest enrolment of members and the largest graduating class in its history. The average number admitted the last five years has been 115; the past year the number has been 141. The average enrolment the last five years has been 256; the enrolment the past year has been 274. The average number of graduates the last five years has been 89; the number the past year was 108.

In the June and September examinations for admission this year, 1898, 179 applicants appeared. Twenty of these came for examinations preliminary to entrance in 1899. One hundred and fifty-nine sought admission this year, and 141 were received. The number in attendance is 277, which fills the assembly hall to its utmost capacity.

Good health and enthusiasm have prevailed through the year. Teachers and pupils have prosecuted their work with diligence and fidelity, upon the same principles and towards the same ends as heretofore. If the demand for the graduates of the school is an indication of the quality of its work, that has not deteriorated. The demand for graduates much exceeds the supply.

The number of those who seek the benefits of the special courses of one year is increasing. The past year 25 have taken these courses for college graduates and teachers of experience. The school in both departments, the normal and the model, is instructing not only its students but a large number of teachers, superintendents and members of committees who come to study its methods. Its outlines of subjects used in teaching are widely sought.

The model school is steadily increasing in numbers, and now has an enrolment of 410 pupils, grouped in eleven grades, two in the kindergarten and nine above, up to the high school, with a regular teacher in each grade. The school is doing better work every year, and is an invaluable aid to the training of the normal students.

The faculty of the normal school has not changed during the year, and only one change has occurred in the instructors of the model school. Miss Martha W. Alden, who has done faithful service for the last seven years, resigned her position as teacher of the fifth grade near the close of the year, on account of ill health; and Miss Jennie Bennett of Middleborough, a normal graduate of successful experience, has been appointed her successor.

The special need of the school at this time is an appropriation for two objects: First, for painting, two coats, the window frames, sashes and outside woodwork of the school building. The building was completed in 1891, and this painting is

necessary to preserve the woodwork. Second, for the setting of curbstones and laying a concrete walk on the south and east sides of the school lot. The north and west sides are finished in this manner, and this outlay is needed for the proper completion of the lot.

The statistics of the school for the year ending Aug. 31, 1898, are as follows :—

Number of students for the year, 274, — 49 men, 225 women; number in the entering class, 141, — 27 men, 114 women; number of graduates for the year, 91, — 15 men, 76 women; number receiving certificates for special courses, 17, — 5 men, 12 women.

The whole number of students who have been members of the school is 4,482, — 1,247 men, 3,235 women. The number who have received certificates or diplomas is 2,881, — 817 men, 2,064 women; of whom 241 have graduated from the four years' course, — 128 men, 113 women.

Of the 274 members of the school for this year, Plymouth County sent 70; Bristol, 43; Norfolk, 33; Middlesex, 21; Suffolk, 15; Worcester, 15; Barnstable, 12; Essex, 9; Hampden, 5; Hampshire, 4; Nantucket, 4; Berkshire, 2; Dukes, 1; Franklin, 1; the State of New Hampshire, 12; Maine, 9; Vermont, 4; Connecticut, 3; New York, 1; Pennsylvania, 1; South Carolina, 1; Mexico, 5; Nova Scotia, 3. Total from Massachusetts, 235, 14 counties and 92 towns being represented; other States and countries, 39.

The distribution of the students for the year was as follows: special advanced course, 9; other special courses, 16; four years' course, 58, — 24 men, 34 women; intermediate course, 22, — 3 men, 19 women; two years' course, 169, — 15 men, 154 women.

The average age of those admitted during the year was 20 years, 8 months; of the men, 21 years; of the women, 20 years, 7 months.

Of the 141 admitted, 12 came from colleges, 4 from normal schools, 125 from high schools and academies; of these, 34 had taught.

The occupations of the fathers of those admitted were given as follows: mechanics, 42; farmers, 24; merchants, 14; superintendents and foremen, 7; clergymen, 6; bookkeepers and clerks, 6; laborers, 5; in government service, 4; contractors and builders, 3; physicians, 3; teachers, 3; engineers, 3; manufacturers, 2; salesmen, 2; sea captains, 2; editor, printer, jeweller, florist, baggage-master, expressman and fisherman, 1 each; not given, 8.

Of the 141 students admitted during the year, Bridgewater and

Fall River sent 10 each ; Taunton, 9 ; Middleborough, 8 ; Brockton, 6 ; Boston and Easton, 4 each ; Hingham, Nantucket and Quincy, 3 each ; Barre, Chelsea, Harvard, Holbrook, Medfield, Plymouth, Scituate, Somerville, Springfield, Uxbridge and West Boylston, 2 each ; Abington, Acton, Andover, Barnstable, Braintree, Cambridge, Canton, Clinton, Cohasset, Dennis, Dighton, Dover, Duxbury, East Bridgewater, East Longmeadow, Fairhaven, Falmouth, Gloucester, Haverhill, Hyde Park, Kingston, Lawrence, Marshfield, Medford, Merrimac, Needham, New Bedford, Newton, Northbridge, Plainfield, Provincetown, Raynham, Spencer, Westborough, Weymouth and Winthrop, 1 each ; New Hampshire, 7 ; Maine, 6 ; Vermont, 3 ; Connecticut, 2 ; Pennsylvania and South Carolina, 1 each ; Nova Scotia, 3.

ALICE FREEMAN PALMER,
GEO. I. ALDRICH,

Board of Visitors.

STATE NORMAL SCHOOL, FRAMINGHAM.

HENRY WHITTEMORE, PRINCIPAL.

INSTRUCTORS.

HENRY WHITTEMORE, psychology, school laws of Massachusetts, school organization and government; AMELIA DAVIS, mathematics, astronomy, SUSAN J. HART, natural sciences; FREDERICK W. HOWE, physics, chemistry; LOUISA A. NICHOLASS, household arts; M. ELIZABETH HOLBROOK, history, civil polity; SARAH E. PRATT, Latin; MARY C. MOORE, English language and literature; LILLIAN ORDWAY, Latin, geography; MARY H. STEVENS, French; JANE E. IRESON, elocution; HARRIET L. LACEY, drawing; FREDERICK W. ARCHIBALD, singing; ALMA E. HURD, gymnastics.

Practice School: SUSAN M. EMERSON, Grade 9 and sloyd; J. ANGELINA SMITH, Grades 8 and 7; NELLIE A. DALE, Grades 6 and 5; ALICE V. WINSLOW, Grades 4 and 3; ELIZABETH A. MALLOY, Grades 2 and 1.

The last year has been an eventful one for Framingham. In January, 1898, Miss Ellen Hyde resigned, her resignation taking effect September 7, when she opened a private boarding school in her own home. For twelve years she was a teacher in this normal school, and for twenty-three years its honored principal. We cannot more fitly express our sense of the noble service she has rendered to the State and its pupils and our recognition of her devotion to her work than by embodying in this report to the Legislature the resolution passed by the Board in full session Feb. 3, 1898:—

The Board of Education, in accepting the resignation of Miss Ellen Hyde, principal of the Framingham Normal School, desires to put on record its deep sense of the far-reaching, wide and beneficent service she has rendered the State during the thirty-five years of her connection with the school. She has imparted to it as a unit, and to the pupils individually, a high sense of the dignity of the profession of

teaching, of the thorough training requisite for instructors, and of the refined and Christian graces of womanhood.

The State of Massachusetts, the Board of Education, the town of Framingham and the innumerable pupils who have been under her charge, owe her a vast debt of gratitude for her able administration of the school and her sincere devotion to the highest interests of education.

The wise selection of a new principal, always difficult, was happily determined by the appointment of Mr. Henry Whittemore, of large experience as a successful principal of the high school in Westborough for ten years, and who came to Framingham from Waltham, where for fifteen years he had been superintendent of schools. In that position he had become fully cognizant of the qualities of mind and heart and of the amount and kind of knowledge which towns and their committees demand of their teachers, and was thus peculiarly fitted to assume the position of principal at Framingham.

That his appointment met with quick approval is evidenced by the fact that the total number of pupils admitted to the school this September, 1898, was 111, which is 7 more than were in the school during the last year; to which should be added the number of pupils in the senior class, making the whole number of students now in attendance 155.

The second event of the school was the installation at Framingham of the "Boston Normal School of Household Arts,"—words which are fraught with far-reaching significance and generosity, for this installation was a gift.

On May 5 Hon. Frank A. Hill, as secretary, received a letter from Miss Amy Morris Homans, director of the Boston Normal School of Gymnastics, founded by Mrs. Mary Hemenway, stating that she was "authorized by the Mary Hemenway trustees, Augustus Hemenway, Reginald Gray and Horace A. Lamb, to offer to your honorable Board the Boston Normal School of Household Arts, established by the late Mrs. Hemenway, to meet the demand for trained teachers of cookery, created by the introduction of this branch of work into the public schools of Boston."

Continuing, she wrote that, "since a law has been passed by the State, making manual training compulsory in our large

cities and towns, it would seem that the Commonwealth should make provision for the training of teachers in domestic science ; . . . and that therefore it might be advisable to have the school a department in one of the normal schools now existing ; . . .” and that, “should the Board favorably consider the proposition of the Mary Hemenway trustees,” she further was “authorized to say that Mr. Hemenway will thoroughly furnish and equip such a department, as a memorial to the work done by his mother, and that the trustees will, for two years, pay the salary of a special teacher.”

The Board, recognizing the importance to the State of such a liberal offer, appointed its secretary and Mrs. Wells a committee to confer with Miss Homans. The nearness of Framingham to Boston, the many grammar schools of the town from which pupils could be drawn to serve as model classes, and the boarding-houses connected with the normal school, were adequate reasons for selecting Framingham as the normal school best adapted to continuing Mrs. Hemenway's school. The more the committee studied the proposition, the more deeply impressed were they with the generous character of the offer, and with the advantages to be gained by the State in training its pupils to be teachers of household arts. As such instructors, now employed in the public schools of Boston, are largely graduates of Mrs. Hemenway's school, it was evident that the stage of experiment had been passed, and that the school had proved its practical value as an educational force. It was also apparent that the public statutes recognize, at least by implication, training in household arts as a part of manual training ; therefore the committee recommended that the offer be accepted.

At the June meeting of the Board final action was taken upon the acceptance, and the gratitude of the Board was extended to the trustees for their generous gift and for the opportunity thus offered to it for wider utility in the service of education.

During the summer the transfer of the household arts school was accomplished and fresh equipment provided. The largest class-room was assigned to it, and the gymnastic apparatus which had been there was removed to the lower room, where were the clothes lockers, and they in turn were placed in the basement.

Miss Hontans superintended all the arrangements, giving voluntarily of her time, wide knowledge and ripe judgment. Two portable ranges, provided with all the latest improvements, an Aladdin oven, a gas stove and gas heating stands on long tables for use in special tests furnish the various heating appliances for the preparation of food. Closets and drawers hold the dishes and cooking utensils, and such chemical and microscopical apparatus as is not otherwise provided in the regular laboratories of the school. An admirable scientific library is part of this gift. The work is divided between the special senior and junior classes, which include 18 pupils. The girl pupils of the eighth and ninth grades of all the grammar schools in Framingham come twice a week for lessons. Miss Nicholass, who had taught this school in Boston, consented, much to the gratification of the trustees and of ourselves, to continue in charge of it, though as one of the faculty of the normal school she and her pupils conform in all respects to the rules and regulations of the principal, Mr. Whittemore, and of the Board of Education.

Through the kindness of the Mary Hemenway trustees, Mr. P. G. Stiles, B.S., instructs the seniors in physiology, and Mr. S. C. Prescott, B.S., in bacteriology; but both juniors and seniors take laboratory work in chemistry and physics under Mr. Howe, the regular instructor of the school. It will be seen that the course in household arts extends from the laying of a fire to the scientific knowledge and application of the principles of chemistry and physics, and of tests for determining results in bacteriology; for these and kindred sciences, still to be taught, underlie the practical management of all household arts, and, as they become more generally understood, will do much towards improving the homes of the people, thus contributing to the prosperity of the State.

A few changes have occurred in the faculty since our last report. Miss Augusta Barber, one of the ablest and most delightful of the teachers in the practice school, has resigned, to accept a position in connection with Bryn Mawr. Miss C. F. Spear has left the school on account of ill health. Miss A. V. Winslow has been appointed teacher in the practice school. Mr. F. W. Archibald is the instructor of music, and Mr. F. W.

Howe has charge of chemistry and physics, thus bringing those departments to their rightful place in the curriculum of the school. The kindergarten has been closed for the current year.

Lectures have been delivered by Rev. Egerton R. Young, Dr. Edward Pick, Mr. L. Walter Sargent, Mr. Charles Malloy, Dr. T. M. Balliet, Mr. J. R. Potter, Dr. E. E. Hale, Prof. G. H. Barton, Miss Amelia Davis, Miss Virginia Dox, Mrs. Mary A. Livermore and Mr. Dagg, and the quartette from Hampton Institute has furnished a concert.

Gifts of minerals have been received from Mrs. Jane Ireson ; of marine specimens, from Mr. Thomas Luce ; and of a complete set of George Sand's works, that formerly belonged to Mrs. Lydia Maria Child, from Miss E. F. Damon. Most pleasant is it to note the gift of a portrait of Miss Lucretia Crocker, from her sister, Miss M. H. Crocker. Miss Lucretia Crocker was a graduate of this school and of Antioch College. She was one of the six women who were appointed for the first time on the school committee of Boston, and later became one of its supervisors. Crocker Hall is fitly named for her.

The statistics of the school are as follows : —

Number admitted in September, 1897, 56 ; number graduated in June, 1898, 4 years' course, 2 ; 2 years' course, 22 ; total, 24. Whole number of pupils for the year 1897-98, 104.

Average age of those admitted in September, 19 years, 4 months.

Occupations of parents : merchants, 15 ; mechanics, 32 ; farmers, 15 ; professions, 10 ; agents, 10 ; manufacturers, 3 ; brokers, 4 ; bookkeepers, 2 ; miscellaneous, 13 ; total, 104.

Residences of pupils : Massachusetts, — Middlesex County, 45 ; Worcester County, 12 ; Norfolk County, 8 ; Essex County, 5 ; Berkshire County, 4 ; Suffolk County, 1 ; Bristol County, 1 ; Hampden County, 1 ; Nantucket County, 1 ; total, 78. Other States, — New Hampshire, 8 ; Connecticut, 4 ; Maine, 3 ; New York, 2 ; Pennsylvania, 2 ; South Carolina, 1 ; Illinois, 1 ; Vermont, 1 ; New Jersey, 1 ; District of Columbia, 1 ; total, 24. Number from Massachusetts and other States, 102. Nova Scotia, 1 ; England, 1 ; total, 104.

KATE GANNETT WELLS,
GEORGE H. CONLEY,

Board of Visitors.

STATE NORMAL SCHOOL, SALEM.

WALTER P. BECKWITH, PRINCIPAL.

INSTRUCTORS.

WALTER P. BECKWITH, psychology, pedagogy, school laws; ELLEN M. DODGE, English literature, German; HARRIET L. MARTIN, mathematics; CHARLES E. ADAMS, physics, chemistry; JESSIE P. LEAROYD, botany, French, English grammar; CHARLES F. WHITNEY, drawing and art; MARY A. COMEY, history, penmanship, library; WILLIAM C. MOORE, S.B., mineralogy, geology, geography; M. ALICE WARREN, biology, physiology, physical training; FLORENCE M. SNELL, A.M., English literature, Latin; VESTA H. SAWTELLE, Music; SUSAN E. FARNHAM (temporary), reading.

Model Schools: ADELAIDE A. JACKSON, third and fourth grades; BERTHA H. DES JARDINS, second grade; Harriet E. Richmond, first grade.

Kindergarten: LAURA M. SKINNER, HELEN L. NEWTON (assistant).

The changes during the year have for the most part been those which were outlined in last year's report. No important departures from the general line of policy therein indicated have been made, and most of the plans which were then in process of execution have been continued and are working well.

There was no change in the teaching force during the year, but at its close the resignation of Mrs. Gish Garwood, who had been the instructor in music since 1892, was tendered, on account of her decision to adopt other pursuits. Her successor is Miss Vesta H. Sawtelle of Malden, who has had thorough training in music and abundant teaching experience. Since the beginning of the new school year the corps of teachers has lost by death Miss Harriet D. Allen, who completed in June a quarter-century of faithful and devoted service to the school. She was a graduate of the school, and nearly all her active life had been employed in its service. Her energy, enthusiasm and

good-will in its behalf and in behalf of its students have been valuable and will be greatly missed. Her work is being done for the present by Miss Susan E. Farnham of Peabody.

The model schools have continued their successful operation, and have apparently made a place for themselves in the good opinion of the community which they serve, besides supplying the need for which in particular they were established. It is unfortunate that the conditions do not seem to be yet ripe for the establishment in this building of schools for practice as well as for observation. In such schools, properly conducted and provided with a sufficient number of alert and wise supervisors, there is not the slightest reason for any apprehension that the children would not receive quite as good instruction as in the average public school, even in favored communities. It may be found practicable to secure practice opportunities in some of the neighboring towns and cities, perhaps to organize regular practice schools with their co-operation.

The class which graduated in June was of excellent quality. Almost every member is now teaching, so far as information goes. In fact, if the classes of graduates were of double their present size, there would apparently be no difficulty in finding positions for them. There is a sentiment of constantly increasing strength in favor of insistence upon a normal school training. This is manifest even in the places which have been depending upon local training schools; and it is gradually becoming evident that normal schools and training schools are not to be permanent rivals, but they are to supplement each other's work, in some cases, perhaps, even to become organically connected.

The requirement that applicants for admission shall be high school graduates instead of reducing has actually seemed to increase the size of entering classes. Thus, in September, 1896, the admissions to this school numbered 47; in September, 1897, they increased to 77; in September, 1898, the number was 103. Altogether, the prospects seem to be encouraging.

The work of the year has been faithfully done; there has been a conspicuous degree of good feeling and cordiality among the students and between them and the teachers; notable tokens have appeared of a growing feeling of cordiality and confidence

among those on whose co-operation and good-will we are largely dependent.

STATISTICS FOR THE YEAR ENDING JUNE 22, 1898.

1. The whole number of students belonging to the school during the year was 140. Of this number, Essex County sent 70; Middlesex, 52; Suffolk, 7; Bristol, 1. The State of New Hampshire sent 5; Maine, 2; Vermont, Prince Edward Island and Nova Scotia, 1 each. The whole number of students connected with the school since its opening in September, 1854, is 4,292.

2. The number of students admitted to the school during the year was 77, of whom 9 had taught more or less. The average age of the new students at the beginning of the school year in September, 1897, was 19 years, 5.3 months. Of the number admitted, Salem sent 7, North Andover, 6; Chelsea, Peabody, Topsfield, Cambridge and Malden, 4 each; Somerville, Arlington and West Newbury, 3 each; Wakefield, Groveland, Amesbury, Melrose, Newton and Boxford, 2 each; Reading, Belmont, Beverly, Danvers, Saugus, Swampscott, Stoneham, Gloucester, Everett, Revere, North Reading, Bradford, Ipswich, Lynn, Marblehead, 1 each. New Hampshire sent 3; Maine, 2; and Prince Edward Island and Nova Scotia, 1 each.

3. The occupations of the fathers of the new students were as follows: mechanics, 34; farmers, 14; merchants and traders, 12; book-keepers and clerks, 10; manufacturers, 2; overseers, 5; teamsters, 3; civil engineers, 2; clergyman, lawyer and physician, 1 each; not known, 2.

4. The number graduated from the two years' course June 22, 1898, was 48, and from the advanced course 1. The total number of graduates from the two years' course in eighty-four classes is 2,226, and from the advanced course, 127.

ELMER H. CAPEN,
GEORGE I. ALDRICH,
Board of Visitors.

STATE NORMAL SCHOOL, WORCESTER.

E. HARLOW RUSSELL, PRINCIPAL.

INSTRUCTORS.

E. HARLOW RUSSELL, principles of education, theory and art of teaching, reading, psychology of childhood; CHARLES F. ADAMS, arithmetic, geography, geology, physics; REBECCA JONES, elementary methods, supervision of apprentices, sewing, cooking; ELLEN M. HASKELL, history of education, civics, general method, English; ANNA P. SMITH, (librarian), arithmetic, algebra, geometry, methods, supervision of apprentices; HELEN F. MARSH, music, drawing; ARABELLA H. TUCKER (clerk), botany, penmanship; EMMA A. PIKE, English, algebra, methods, supervision of apprentices; Mrs. MARION J. SUMNER, choral singing; E. LOUISE RICHARDS, kindergartner; AMY L. BOYDEN, primary teacher, methods; OLIVE RUSSELL, assistant in kindergarten and primary class; FRANK DREW, psychology, physiology, nature study; HORACE G. BROWN, English grammar, composition, history; HENRIETTA A. MURRAY, gymnastics, school games.

Facilities for observation and practice are furnished in the schools of Worcester.

At no period in the history of this school have there been manifest more signs of healthy progress than during the past year. The teaching staff is ample, capable and faithful; the students as a body are diligent and enthusiastic; and the graduates are in active demand as teachers, and are successful and acceptable in a gratifying degree. The school has entered upon its twenty-fifth year with a well-established character and reputation. The visitors believe that it has contributed its full share not only to the maintenance but also to the advancement of the standard of teaching in our Commonwealth, and that it has done this with a strict economy of the means annually placed at its disposal by the Legislature. This is particularly apparent in its unique system of apprenticeship, whereby, at

little more than a nominal cost, it has afforded to all its students what we believe to be unsurpassed opportunities for practice under competent supervision in the public schools of the city of Worcester, so that our graduates have entered at once upon their work with an unusual acquaintance with the everyday details of school-keeping. The recent extension of the period of apprenticeship to a full year is bearing excellent fruit; it more than doubles the value of the practice.

The visitors also note that in the administration of the school there have always prevailed high ethical standards, a healthy and happy social spirit, and a tendency towards originality, freedom and self-reliance that has made itself felt for good in the after career of many of the graduates.

Especially noteworthy, too, is the loyalty and attachment almost universally shown by the graduate body, — a sentiment that seems to increase rather than fade out with the lapse of years. Nor is this mere personal sentiment and affection; it amounts to deliberate approval, after mature experience and reflection, of the training and influence that have characterized the school throughout its history.

The past year has been one of much prosperity. The buildings, after the substantial improvements recently made, are found altogether convenient and serviceable; the grounds are growing more beautiful and attractive year by year; the numbers have increased, almost to the full capacity of our accommodations; the general health has been uniformly good; and the graduating classes have been large, and of a quality quite up to, and probably above, the average of former years.

The electric time-service, for which an appropriation was made last year, was successfully installed during the summer by Messrs. Blodgett Brothers & Co. of Boston, and has worked so far to the entire satisfaction and great advantage of the school.

The primary class has fairly outgrown its somewhat limited accommodations, and provision should be speedily made for enlarging its present quarters.

The visitors desire to express their warm thanks to Mrs. Kate Gannett Wells, who at much personal inconvenience came to the graduation exercises in June, and gave a very

interesting and valuable address upon the theme, “Our schools from an unprofessional point of view.”

The subjoined statistics give in condensed form the usual facts upon which this report is mainly based:—

STATISTICS.

1. Number of students for the year, 190.
2. Number admitted in September, 1898, 81; number admitted since the opening of the school in 1874, 1,517.
3. Average age of pupils admitted, 19 years, 2 months.
4. Residences of pupils admitted: Worcester County, 74; Middlesex County, 1, Bristol County, 1; Franklin County, 1; New Hampshire, 1; Connecticut, 1; Vermont, 1; Iowa, 1; total, 81.
5. Occupations of pupils' parents: mechanics, 26; agriculturists, 12; merchants, 6; overseers, 6; laborers, 6; contractors, 3; policemen, 2; publishers, 2; coachmen, 2; undertakers, 2; clerks, 2; moulders, 2; optician, watchman, painter, manufacturer, paver, conductor, expressman, teacher, draughtsman, insurance agent, 1 each; total, 81.
6. Numbers in graduating classes: in January, 1898, 35; in June, 1898, 18; total, 53.
7. Average age of graduates: in January, 1898, 21 years, 9 months; in June, 1898, 22 years, 4 months.
8. Library: reference books reported last year, 4,830; volumes added this year, 336; total, 5,166. Text-books reported last year, 6,103; volumes added this year, 307; total, 6,410. Whole number of volumes in the library, 11,576.

E. B. STODDARD,

J. D. MILLER,

Board of Visitors.

STATE NORMAL SCHOOL, NORTH ADAMS.

FRANK FULLER MURDOCK, PRINCIPAL.

INSTRUCTORS.

FRANK FULLER MURDOCK, psychology, pedagogy, geography; ROLAND W. GUSS, science; CHARLES H. STEARNS, manual training; LYMAN R. ALLEN, history, geography, Latin; ANNETTE M. BARTLETT, mathematics, music; MARY A. PEARSON, drawing and color; CATHERINE W. PARKER, English, vocal expression; ANNIE C. SKEELE, physiology, physical culture.

Training School: MRS. DONNA D. COUCH, principal; ROSA E. SEARLE, HARRIETTE P. RYDER, EDITH M. DUNNING, HANNAH E. MAGENIS, MARION L. WEBSTER, ANNA S. COYLE, F. A. CLARKE, FANNIE FOOTE, SUSAN G. LOMBARD, SARAH E. BOWER, EMMA H. TINGUE, MARGARET F. COLLINS, OLIE M. HILLIARD, SUSAN A. CLEGHORN.

Kindergarten: DELLA M. WEBB, principal; LILIAN S. DANIELS, assistant.

The work of the school in all departments has been strong and effective. The pervading spirit in children, students and teachers has been earnest, loyal and distinctly sympathetic. The willingness and ardor with which the third normal class entered upon its duties show the value of the school spirit and its rapid growth.

The presence of three classes during the year 1898-99 necessitated the employment of a new instructor. Mr. Lyman R. Allen, a graduate of the four years' course at the Bridgewater Normal School, a graduate of the Lawrence Scientific School (Harvard) and a successful teacher in secondary and elementary schools, began work in September, teaching history, geography and Latin.

Most of the students of the first class, which entered in February, 1897, will remain till the close of the year, in June, 1899. They are now pursuing, in addition to the regular work,

such subjects not included in the two years' course prescribed by the Board of Education as will enable them to teach in any grammar grade in the best schools,—a preparation not now fully given by the two years' course in any of the normal schools. Other students in each of the classes have requested the same privileges and opportunities for practice work during a third year.

The work of the training school has attained a high degree of efficiency, and is having a marked effect in producing the "teacher's view" in the minds of the students. The entering class begins observation in this department within a month after admission, and continues through the study of children, observation of teaching, assisting in school management, to full practice in teaching during the senior year. Without these opportunities the value of the normal work would be impaired to a marked degree. Facilities for observation and practice and supplies beyond the province and possibility of the city should be generously provided by the State.

It is our pleasure to testify here to the intelligent, sympathetic co-operation of the school committee and the superintendent of schools of North Adams and to express our gratitude for the generous appropriation by the council for the purchase of land. No other city or town surpasses North Adams in its cordial support of a normal school.

Of the 102 students now enrolled nearly 50 bring luncheons daily, and are subject to much inconvenience and deprived of food-warming facilities by the limitations of the room. More than 30 students and 10 teachers are boarding in the vicinity. A dormitory is becoming a necessity for the physical welfare of students and teachers, and will prove, as at other schools, a great factor in developing and maintaining the student spirit and in transmitting the same with increased force to succeeding classes.

The provisional clause in the resolve providing \$20,000 for the purchase of land and grading required that so much money as might be needed for the completion of the grading and other work on the grounds now owned and occupied by this school should be expended previous to any further purchase of land. The complete needs of the school could not be met by such use

of the money appropriated, and it is deemed best to present the situation of this school at the next session of the General Court, for fuller consideration. We therefore renew our recommendations of last year.

At the west edge of the school lot, between it and Montana Street, is a row of four lots. Houses built on these lots will present their back yards as the foreground of what otherwise will afford the finest view from the school building. The securing of these lots for the normal school will head off these back-yard possibilities, and save for the school a superb prospect. Moreover, it will make it convenient to encourage certain aspects of botanical study, school gardening, out-door games and the like, within the limits of the normal school grounds. On the south side the State property abuts upon a private way, which, if laid out according to present lines, will involve the construction of a long stone wall, from one foot to ten or twelve feet in height. The street will then be in a deep cut, and approach to the buildings from the south side will be impossible. Across the upper half of this private way is an unimproved piece of ground, the most advantageous site for the erection of a dormitory, which will be necessary in the near future. The private way can be closed and graded up to the levels of the present grounds. It is recommended that the Legislature be asked to purchase the lots on the west side of the present grounds, and also the unimproved land on the south side of the private way; and thus secure, before further rise in value, the additional land certain to be indispensable to the school at no distant day. It is further recommended that the Legislature be requested to provide for the grading of the entire property which will have been acquired—after these purchases by the State—for the uses of this school.

STATISTICS.

1. Number admitted in September, 34, — men 1, women 33. Whole number enrolled during the year, 106, — men 6, women, 100.
2. Average age of September class, 19 years.
3. Number of students received from Massachusetts: Berkshire County, 96; Franklin County, 4; from Vermont, 3; from New Hampshire, 3.

4. Occupations of parents represented: farmers, 24; stonemason, 1; mechanics, 15; electricians, 2; miller, 1; policeman, 1; superintendents, 3; printers, 2; painters, 3; carpenters, 2; clerks, 3; merchants, 12; laborers, 2; lumbermen, 3; tinsmith, 1; blacksmiths, 4; engraver, 1; cooper, 1; druggist, 1; lawyer, 1; engineers, 2; hotel keepers, 2; contractors, 3; janitors, 2; agents, 2.

FRANKLIN CARTER,

E. B. STODDARD,

Board of Visitors.

STATE NORMAL SCHOOL, HYANNIS.

W. A. BALDWIN, PRINCIPAL.

INSTRUCTORS.

W. A. BALDWIN, psychology; pedagogy, history of education; MINERVA A. LAING, chemistry, mineralogy, drawing; BERTHA M. BROWN, biology, mathematics; FREDERIC H. HOLMES, geography, manual training, physics; EMMA B. MACLEOD, English, history; EVA A. HICKOX, physical culture; EDMUND F. SAWYER, vocal music.

Training School: RICHARD WALLACE MARSTON, principal, Grades 8 and 9; Mrs. NELLIE ESTER COLEMAN WILBAR, Grades 6 and 7; EVA A. HICKOX, Grades 5 and 6; MARIA D. MCLEOD, Grades 3 and 4; ILDAH M. CHANEY, Grades 2 and 3; MARIA FULLER, principal of primary department, Grade 1.

REGULAR SESSION.

On the 9th of September, 1897, the normal school at Hyannis was opened for its first class. During the school year 41 pupils were registered. Several of these were in attendance for only a brief time, so that the number of regular students for the year was about 35. Thirty-one returned for their second year, and in September, 1898, 24 new pupils were registered, making a total registration of 55 for the current year. Of this class, 42 are women and 9 are men. Five are teachers of two or three years' experience, and one is a college graduate.

TEACHERS.

This school opened with three teachers on full time and one for one day per week in the normal school, and five teachers in the training school. On March 7 Mrs. Sara T. Oliver was granted a leave of absence on account of ill health, and Miss Hattie Bruce Shaw was employed as a substitute for the re-

mainder of the year. On March 14 Mr. William F. Eldredge was employed to spend half time for the remainder of the year in teaching physics. During the summer vacation, Mrs. Oliver's health continuing poor, she felt obliged to resign; and Miss Minerva A. Laing, a graduate of the Oswego State Normal and Training School, and a special student of the Institute of Technology, was elected in her place.

Miss Emma B. Macleod, a teacher of large experience in grammar and high schools, and a special student in history at Leland Stanford and Cornell universities, was elected to teach history and English.

Mr. Frederic H. Holmes, who has spent four years at Harvard and taught five years in Worcester Academy, was elected to have charge of geography, manual training and physics.

In the training school Misses Buckley, Cushman and Smith resigned, and a new room was opened, so that it became necessary to secure four new teachers for that school. Much pains was taken in the selection of these teachers, as it is proposed to make the training school a very strong element in the training of normal students.

Miss Maria Fuller, a graduate of the normal school at Potsdam, N. Y., and recently a teacher in the Chico Normal School, California, was made principal of the primary department, with Miss Ildah M. Chaney, also a graduate of the Potsdam Normal School, a teacher of several years of experience, and Miss Maria D. McLeod, a teacher of long and successful experience in Andover, Mass., as assistants.

Miss Eva A. Hickox, a graduate of the New Britain Normal School, Conn., and the Boston Normal School of Gymnastics, was elected to take charge of the pupils of the fifth and sixth years of the training school and to direct the physical training in the normal school.

There are now 6 teachers in the normal and 6 in the training school. Of these, 6 are from Massachusetts, 4 from New York, 1 from Connecticut and 1 from California. In their preparation the following colleges and normal schools are represented: Harvard, 2; Institute of Technology, 2; Cornell, 2; Oswego, 2; Potsdam, 2; Bridgewater, 1; New Britain, 1.

TRAINING SCHOOL.

The general plan is to make the training school a model school for the first half of each year, pushing the children along as fast as possible, and then use it for a training school the last half, allowing the normal students to assume more and more responsibility as they develop in power, until they finally assume the full control of a room.

Each room in the training school is in charge of one teacher, who is responsible for the work of the children of the room for the year and in part for the practice work of those normal students who train in that room. Each teacher in the normal school is expected to do some regular teaching in the training school, and to supervise the work of his particular department in all of the grades of this school.

STATISTICS FOR THE REGULAR SESSION.

1. Number of students registered Sept. 8, 1898: men, 9; women, 46; total, 55.
2. Number of students registered since Sept. 9, 1897: men, 12; women, 42; total, 64.
3. Average age of entering class when admitted, 18 years, 10 months.
4. Number who have had experience as teachers, 3.
5. Residence of pupils: Barnstable County, — Barnstable, 5; Brewster, 1; Dennis, 2; Harwich, 1; Orleans, 1; Provincetown, 3; Yarmouth, 4; total, 17. Dukes County, — Cottage City, 1; Bristol County, — Fall River, 6; total, 24.
6. Occupations of pupils' parents: carpenters, 7; grocers, 2; farmers, 3; barber, commercial traveller, fisherman, mariner, operator, superintendent of railroad, 1 each.

SUMMER SESSION.

In connection with the appropriation for the support of the normal school at Hyannis for the regular session of the current year, the sum of \$2,500 was voted for the maintenance of a summer session of the school. This summer session was opened on July 6 and continued for five weeks.

The faculty consisted of the following : —

W. A. BALDWIN, principal ; NELLIE ALLEN, supervisor in grammar grades in the practice school ; State normal school at Fitchburg, Mass. ; MABEL L. CUMMINGS, supervisor of gymnastics, Attleborough, Mass. ; JOHN B. GIFFORD, superintendent of schools at Peabody and Marblehead, Mass. ; IDA H. HYDE, B.S., Ph.D., Cambridge, Mass. ; H. ANNIE KENNEDY, supervisor of nature work, Quincy, Mass. ; MARY E. LAING, instructor in psychology, State normal school, Oswego, N. Y. ; CHARLES D. MESERVE, A.B., instructor in mathematics, Newton High School, Newton, Mass. ; E. M. REED, principal of training school, Springfield, Mass. ; HATTIE BRUCE SHAW, instructor in number and drawing, State normal school, Hyannis, Mass. ; EDMUND F. SAWYER, instructor in music, State normal school, Hyannis, Mass. ; CHARLES PETER SINNOTT, B.S., instructor in geography, State normal school, Bridgewater, Mass.

General Lectures : THOMAS M. BALLIET, Ph.D., superintendent of schools, Springfield, Mass. ; G. H. MARTIN, supervisor of schools, Boston, Mass. ; Hon. FRANK A. HILL, Lit.D., secretary of the State Board of Education, Boston, Mass. ; ALICE FREEMAN PALMER, Ph.D., L.H.D., member of the State Board of Education, Cambridge, Mass. ; WILLIAM M. DAVIS, professor of geography, Harvard University, Cambridge, Mass. ; M. V. O'SHEA, A.M., professor of the science and art of teaching, University of Wisconsin, Madison, Wis. ; ARNOLD TOMPKINS, Ph.D., professor of pedagogy, University of Illinois, Champaign, Ill. ; GEORGE I. ALDRICH, A.M., member of the State Board of Education, Boston, Mass.

The students were 120 in number. A statement of their experience and preparation is given in the following table : —

Average age (years),	26
Average years of experience,	6
Number of students graduated from college,	6
Number of students graduated from normal schools,	18
Number of students graduated from training classes,	22
Number of students graduated from high schools,	91
Number of students who had attended college,	6
Number of students who had attended normal schools,	18
Number of students working for diploma,	68

These students came from all parts of Massachusetts, nearly every city being represented by two or three teachers. Two or three teachers came from each of the other New England States and from New York State. There were teachers from all grades, from the kindergarten to the normal school.

SUBJECTS OFFERED.

	Hours.		Hours.
Psychology,	50	Reading, advanced,	40
Music,	80	Number,	60
Language, elementary English,	40	Gymnastics,	40
Literature for primary schools,	40	Physiology and hygiene,	60
Animals,	40	Manual training,	40
Plants,	40	Physics,	80
Geography,	80	Geometry, elementary,	50
Drawing,	40	Algebra, elementary,	50

Students were encouraged to take but one or two subjects, and intensive work was expected in each. College and normal graduates found that they could keep themselves busy with only one subject.

This school is unique, in that it gives in the summer time real normal school work, which will count toward a diploma. That there is a strong demand for such a school was proved by the number and earnestness of the teachers at this first session. That these were well satisfied with what they received may be inferred from the fact that nearly all have registered for another summer, and that over half are working for diplomas.

Without much increase in expenditure, twice as many people can be accommodated. The State gets immediate returns, as these teachers go at once into the schools and commence to practise what has been learned during the summer. It therefore seems advisable to the board of visitors that this summer session scheme be continued, and its scope be enlarged to the full capacity of this school.

GEORGE I. ALDRICH,
ALICE FREEMAN PALMER,
Board of Visitors.

STATE NORMAL ART SCHOOL, BOSTON.

GEORGE H. BARTLETT, PRINCIPAL.

INSTRUCTORS.

GEORGE H. BARTLETT, modeling from life, historic ornament and design; ALBERT H. MUNSELL, EDWARD W. D. HAMILTON and ERNEST L. MAJOR, drawing and painting from the antique figure and life model, composition, artistic anatomy; ANSON K. CROSS, free-hand drawing, light and shade, perspective, model drawing theory; MERCY A. BAILEY, light and shade drawing from animal form, water color painting from still life; GEORGE JEPSON, descriptive geometry, mechanical drawing, shop work; ANNIE E. Blake, modeling and casting, design in the round; HARRY J. CARLSON, building construction, architectural drawing and design; M. LOUISE FIELD and WILHELMINA N. DRANGA, drawing in the public schools; JOHN L. FRISBEE, ship draughting; ELIZABETH J. HINCKLEY, curator.

The record of the Normal Art School during the past year has been one of growth in numbers and in methods of teaching as its normal work is more and more emphasized. Though neither psychology nor child study is taught therein as a specific branch, all the work of the school bears upon the necessity for comprehension of a child's mind. In this connection Prof. M. V. O'Shea of the department of education in the University of Wisconsin gave to the school a course of lectures on the relation of psychology to art education, which was of great value to it.

In June the Legislature granted an appropriation of \$35,000 for the building of an annex to the school, which now numbers 286 pupils. The lack of sufficient class and studio space had crippled the best efforts of the faculty, and the crowded halls and lunches on the stairs were affecting the health though not the zeal of the pupils.

The annex, thirty by one hundred and fourteen feet, occupies the yard running along an alley way, parallel with Newbury Street, and corresponds in height and finish to the present building, which has been changed but little, save as the southern staircase has been replaced by a new fireproof staircase at the end of the main corridor, thereby giving more light and another exit in case of fire. The old hall has been turned into studios, the main hall being now on the third floor of the annex. On its second floor are the library and class rooms. The rest of its space is occupied with various class and lunch rooms, while the heating and ventilating apparatus is in the basement.

Mr. H. J. Carlson, as architect, has directed every detail of the building, which proves most satisfactory in its working capacity and in the convenience and beauty of its rooms. Mr. Thomas J. Lyons, as contractor, did his part faithfully.

The annex conforms to the new building laws of Boston, being throughout of steel, concrete and brick, — the only State school in Massachusetts which is absolutely fireproof. New doors close off all stairways from top to bottom. Steel and fireproof supports for the new hall and the old roof have been added to the old building. All these fireproof additions were called for by the city, and, though wise in themselves, encroached unexpectedly upon the appropriation made by the Legislature. The rooms and corridors are still to be painted, and the necessary furniture and equipment of desks, tables and bookcases to be provided, for which an extra appropriation will be needed.

The public school class is meeting with increasingly grateful recognition from many of the teachers of Boston's public schools, as its students in the second half of the final year observe and teach in certain designated schools "under the direction and control of the principal of the school and of the regular teacher, who is always present."

Last June the catalogue of the school was enlarged and enriched, a tabular view of its courses showing the logical manner in which the studies are assigned to the respective classes, in a continuous series of development. Those who are to become teachers and supervisors in public schools have to pass through the elementary free-hand drawing of Class A and the elementary course in mechanical drawing of Class C, perform

all the work required in Class B, — painting, flat decoration, study of the human figure, etc., — and then enter the public school class, taking while there the elementary course in modeling of Class D.

Those who are desirous of receiving the diploma certifying they are capable of teaching industrial drawing must perform all the work of Class A (the entering class), and then enter Class B; they must also take both the elementary and the advanced course in modeling in Class D, and during their graduation year must receive special normal instruction.

The mechanical diploma is bestowed on completion of all the work of Class A and of the elementary and advanced work of Class C.

While all the teachers are animated by a spirit of fidelity and enthusiasm, by a love of art for its own sake and by eagerness for the welfare of the school, it is pleasant to note the able execution of all clerical details, and they are very many, and the wise supervision of the pupils, under the direction of the principal, by Miss E. J. Hinekley, the curator.

In presenting the report for this the twenty-fifth year of the school, we are convinced that the wisdom of those who first established it has been justified. From three rooms in Pemberton Square, with the lecture hall in a low attic, we now have a spacious building, which, even with its annex, may yet prove too small. Mr. Walter Smith was the first principal of the school, holding his position for eight years, and was wise and broad in his methods. Mr. Bartlett, the present principal, was the earliest teacher, and gave the first lesson to the school Nov. 6, 1873, and also the first course of lectures on historic ornament. Mr. Munsell, Mr. Hamilton, Mr. Jepson, Miss Bailey, Miss Hoyt and Miss Field were pupils under Mr. Smith, but have long been members of the faculty of the present school.

Last spring the Normal Art School Students' Association published an attractive account of the school, from its opening to the present time, adding a complete list of its pupils, and their present positions as teachers, artists, sculptors, etc.

The statistics for the school, from Oct. 1, 1897, to June 23, 1898, are as follows: —

Total number of students, 269; men, 53; women, 216. Number in attendance at the present time (Nov. 15, 1898), 284.

Average age of the students, 22 years.

Graduates in June, 1898: public school class, 23; class in mechanical drawing, 5; class in industrial drawing, 4; total, 32.

Appointments since Oct. 1, 1897, of past pupils to be teachers and supervisors of drawing, 36.

Number of students from the several counties in the State, 1897-98: Suffolk, 75; Middlesex, 69; Essex, 29; Norfolk, 18; Bristol, 7; Plymouth, 13; Worcester, 31; Hampden, 6; Franklin, 2; Berkshire, 1; total, 251.

Students from other States are distributed as follows: Maine, 2; New Hampshire, 4; Vermont, 1; Rhode Island, 2; New Jersey, 1; Pennsylvania, 1; Illinois, 2; Indiana, 2; Ohio, 1; Michigan, 1; Texas 1; total, 18. Total from other States and Massachusetts for the year, 269.

Occupations of the fathers of students, 1897-98: professional, 36; merchants, 38; mechanics, 45; insurance, 9; contractor and builders, 12; manufacturers, 15; farmers, 17; commercial business, 20; other callings, 23; total, 215. Deceased, 39; retired, 15; total, 269.

KATE GANNETT WELLS,
GEORGE H. CONLEY,
E. B. STODDARD,

Board of Visitors.

STATE NORMAL SCHOOL, LOWELL.

FRANK F. COBURN, PRINCIPAL.

INSTRUCTORS.

FRANK F. COBURN, psychology, principles of education, school organization and school government; HUGH J. MOLLOY, mathematics; MABEL HILL, history and civil government; LAURA A. KNOTT, English grammar, rhetoric and literature; ANNA W. DEVEREAUX, history of education, kindergarten theory and practice; ADELIA M. PARKER, supervision of practice work; LYMAN C. NEWELL, chemistry, physics and geology; WALTER J. KENYON, drawing, geography and manual training; GRACE D. CHESTER, zoölogy, botany and physiology; ALMA E. HURD, physical culture; VESTA H. SAWTELLE, music.

Model School: CYRUS A. DURGIN, Principal; BELLE A. PRESCOTT, CHARLOTTE M. MURKLAND, BELLE F. BATCHELDER, BLANCHE A. CHENEY, AMY S. TUCKE, MARIA W. ROBERTS, CARRIE E. ERSKINE, MARY E. WALSH, M. IDA HOWE, FANNIE M. SPOONER and GRACE B. ALVORD, assistants.

Kindergarten: BELLE E. PERHAM and CLARE D. REED.

Last year, when the first report of the Lowell Normal School was submitted, the building was still in the hands of the contractors, and only a portion of it was available for school use. In May the building was practically finished, and on the 15th of June appropriate dedication exercises were observed. Col. Thomas Wentworth Higginson delivered the principal address, the mayor of the city and the superintendent of schools being among the other prominent speakers.

Combined with the dedication exercises occurred the graduation of the kindergarten class that had been received from the city training school into the normal school at its opening. A special address was delivered to the graduating class by Miss Laura Fisher, director of the kindergarten schools of Boston, and the diplomas were presented by Mrs. Kate Gannett Wells of the board of visitors. Throughout the day and evening the building was open to the public for inspection.

SECOND SCHOOL YEAR.

The second year of the school has opened with an attendance of 140, a very large percentage of the entering class coming from the neighboring towns. The recent concession of half fare to all members of the school, made by the street railway company, and the reduced rates afforded by the Boston & Maine railroad, no doubt will further contribute to increase the number of students living at a distance.

With the exception of manual training, all the departments of the school are now fully organized. The additions to the teaching force that have been made within the year are as follows:—

Dr. Lyman C. Newell, appointed as instructor in chemistry, physics and geology. Dr. Newell was formerly the science instructor in the Somerville high school. He is a graduate of Brown and Johns Hopkins universities.

Miss Grace D. Chester, appointed as instructor in zoölogy, botany and physiology. Miss Chester was for several years an instructor in Smith College. She is a graduate of the Delaware State College and of Radcliffe. She was also for some time a student at the University of Berlin, Germany.

Mr. Walter Kenyon, appointed instructor in drawing, geography and manual training. Mr. Kenyon's experience as director and instructor in these departments in the schools of the West has been extensive and notably successful.

Miss Vesta H. Sawtelle has been appointed the teacher of music and Miss Alma E. Hurd the teacher of gymnastics. Both are employed in the same capacity in other normal schools of the State.

All of these teachers have been selected with special reference to their fitness for the various courses, each teacher being a specialist in his line of work.

MODEL AND TRAINING SCHOOLS.

In accordance with the agreement made with the city of Lowell, which was "to furnish sufficient and suitable school buildings and model and practice schools, in connection with the training department of the State Normal School," twenty-seven rooms

have thus far been assigned for observation and practice work. These rooms are graded as follows: twelve are for grammar work, three for primary and twelve for kindergarten.

The pupil-teachers begin their observation work during the first year of the course. In the second year their practice work begins. Each training room is in charge of a regular teacher, nominated by the principal of the normal school and elected by the school committee. Although these rooms are not under the same roof with the normal school, they are closely united in every other way, and are working in the most satisfactory and harmonious manner.

There is no complaint on the part of the parents for neglect of their children, as each room teacher is responsible for the progress of her pupils. Each pupil-teacher in her practice work is under the observation of both the room teacher and the critic teacher; she has the advice and assistance of both in the preparation of her daily work, as well as their hints as to how the work should be done. The earnestness with which the pupil teachers engage in their practice work shows that they appreciate the importance of the training they receive. It is to be hoped that after this period of practice work under skilled supervision an opportunity will be available for the pupil-teachers to be placed in full charge of a room. For this purpose it is probable that some arrangement may soon be made to furnish substitute teachers for the city and the surrounding towns.

The program of the normal school is so arranged that each teacher may spend in the model school one day every week, to conduct recitations and to examine the work that the model teachers are to do. This brings the normal teacher in close touch with the actual conditions which the pupil-teachers will meet in their practice work. The model teacher also meets the normal teacher in weekly conference. The deep interest shown by all the teachers and the willingness to answer all demands made upon them cannot fail to produce other than the most gratifying results.

When the present school site was purchased, one corner of it, about ten thousand feet, was reserved by the original owner, who has recently died. The lot with buildings is now for sale. Should a school dormitory ever be needed, this would seem to

be the only available lot. We would advise the purchase of this property, as a fair rate of interest could be realized on the investment.

STATISTICS.

1. Number of students for the year, 140, — 134 women, 6 men.
2. Number admitted in September, 1898, 48.
3. Average age of pupils admitted, 19 years.
4. Of the entering class, Middlesex County is represented by 6 towns, Essex County by 3 towns, Suffolk County by 1 town; the States of Maine, New Hampshire and Vermont by 1 pupil each. Lowell furnishes 16 pupils; Lawrence, 8; Andover, Boston, Methuen, Winchester and Woburn, 3 each; Tewksbury, 2; Newbury, Chelmsford, Brookline, N. H., Rochester, Vt., and Monson, Me., 1 each.
5. Occupations of pupils' fathers: manufacturers, 4; mechanics, 10; laborers, 9; banker, 1; farmers, 8; bookkeepers, 3; merchants, 3; sea captain, 1; physician, 1; agents, 2; grocer, 1; not living, 3.

GEORGE H. CONLEY,
KATE GANNETT WELLS,

Board of Visitors.

NOTE.— On page 37 a sentence that incorrectly makes Miss Crocker a graduate of Antioch College should have been worded as follows: "Miss Lucretia Crocker was a graduate and teacher of this school (the Framingham Normal), and subsequently professor of mathematics at Antioch College." The correction was received too late for attention in its appropriate place.

STATE NORMAL SCHOOL, FITCHBURG.

JOHN G. THOMPSON, PRINCIPAL.

INSTRUCTORS.

JOHN G. THOMPSON, pedagogy; E. A. KIRKPATRICK, psychology and child study; PRESTON SMITH, natural science; HELEN M. HUMPHREY, mathematics; FLORA E. KENDALL, English and geography; ANNETTE J. WARNER, drawing; ELIZABETH D. PERRY, music and physical culture; ABBY P. CHURCHILL, nature study; JOSEPH T. WHITNEY, manual training.

Practice Schools: CHARLES S. ALEXANDER, principal; NELLIE B. ALLEN MARY I. CHAPIN, MATTIE A. COLE, CARRIE E. CARNES, supervisors; CAROLINE HAGAR, assistant.

Model Schools: Kindergarten, EMILY M. SMITH, principal; LULA M. LEIGHTON, assistant; Grade 1, L. FRANCES JONES; Grade 2, IDA M. AUSTIN; Grade 3, MARY L. MERRILL; Grade 4, ALICE C. PLUMER; Grade 5, MARY E. McCONNELL; Grade 6, FRANCES CLARK; Grade 7, BLANCHE L. RUSSELL; Grade 8, ROLINA H. LEWIS; Ungraded, BLANCHE L. RUSSELL.

Practice and Model Schools: ANNETTE J. WARNER, supervisor of drawing; ELIZABETH D. PERRY, supervisor of music and physical culture; ABBY P. CHURCHILL, supervisor of nature study; JOSEPH T. WHITNEY, supervisor of manual training.

IN GENERAL.

The year has been a prosperous one. It has not been a year of marked changes, but rather one of development along the lines of policy determined upon at the opening of the school. The number of students has remained about the same as last year. The calls upon the school for teachers have continued greatly to exceed the number of graduates. At the end of the year Mr. Charles E. Boyd resigned as teacher of music, in order to accept a position nearer his home; and Miss Mary G. Cannon, teacher of physical culture, accepted a position at New Britain, Conn. Miss Elizabeth D. Perry of the West Chester, Pa., normal school was elected as instructor in music and physical culture. Miss Perry has entered upon her work in a

manner that indicates the good fortune of the school in securing her for the position. It was deemed wise to unite the English and geography under one teacher, and as Miss Harriet A. Luddington, who had taught the geography from the opening of the school, was unwilling to undertake both subjects, upon her resignation Miss Flora E. Kendall was elected to the position. Miss Kendall has been for many years a teacher and superintendent in Massachusetts, and brings to her work a knowledge of children of all grades acquired through long experience.

NATURE STUDY.

With the opening of the fall term nature study was made a separate department, and Miss Abby P. Churchill of Greenfield, Mass., was put in charge. Miss Churchill enters upon her work well equipped by a long experience as a teacher and a student of nature.

MODEL AND PRACTICE DEPARTMENTS.

The model schools have been extended to include all grades below the high school, beginning with the kindergarten. Grade 6 with Miss Frances Clark of Chelmsford in charge, and Grade 7 with Miss Blanche L. Russell, transferred from the ungraded school as teacher, have been opened during the year. Grade 8 has been taught by Miss Rolina H. Lewis of Leominster, Mass.

There has been a growing appreciation on the part of parents of the fact that children in the practice schools receive as good instruction as those in the city schools. In regard to practice schools, Chancellor Payne, in his forthcoming report to the trustees of the Peabody education fund, speaks as follows: "Except under extraordinary conditions, an experimental school cannot give to students what may be called an experience in the honest sense of this term, much less an amount of practice equivalent to an apprenticeship in teaching. After what term of service may one be called an experienced teacher? The very lowest minimum that would seem to me to justify such a declaration would be ten weeks, or fifty days of five hours each, making two hundred and fifty hours in the aggregate.

. . . It is almost a pure illusion to regard a few days of such practice work as a training in the art of teaching. . . . There is no virtue in experience *per se*; it may be very helpful or it may be very harmful, all depending on the conditions under which it takes place. In order that a young teacher may turn his experience to profitable account, the following conditions should be supplied: the school or the class should be his own; he should work in the light of some clearly conceived principle; there should be present to his mind some ideal as a model for imitation; he should work with composure, with nothing to stimulate his self-consciousness; whatever criticism is passed on his work should be sparing and judicious, and administered in private." The Fitchburg Normal School gives each student at least thirteen weeks' practice under the conditions which Chancellor Payne declares must be supplied in order that the practice or experience may be helpful.

ADVANCED COURSE.

Last year graduates from the two years' course were offered an opportunity to return for a third year, one half of which was to be spent in teaching and the other half in work at the normal school. By arrangement with the city of Fitchburg, the town of Leominster and the town of Lunenburg, eleven of those graduated last June were offered the opportunity of teaching the full year under supervisors approved by the State, with Saturday work at the normal school during the year, to be followed next year by a half year's work at the normal school. Several others would willingly have taken the course could schools have been provided for them. The wisdom of establishing this course has been fully demonstrated. It gives needed assistance to the young teacher until she is able to stand alone.

SATURDAY CLASSES.

These classes for teachers in actual service, established last year, have been continued. There has been no decrease in interest or in numbers. This year opportunities for work have been offered in science, nature study, psychology and child study.

LECTURES.

For the benefit of the normal students, teachers taking Saturday work and others interested in education, a lecture upon some important educational topic, by one who has made a special study of the subject, has been given on each Saturday afternoon. The following is a list of the speakers and subjects for the year ending Aug. 31, 1898:—

Miss Abby P. Churchill, — Posters.

Supt. C. F. Carroll, — Physical Education.

Supt. J. E. Burke, — The Educational Outlook.

Supt. William C. Bates, — What the Pupil taught the Teacher.

Supt. Thomas M. Balliet (three lectures):—

New Phases of Educational Thought.

Education of the Feelings.

Apperception.

Prof. M. V. O'Shea, — Some Applications of Modern Psychology and Child Study to the Training of Children and the Conduct of Life.

Mr. A. E. Winship, — History and Geography, — a Practical Talk on Correlation.

Supt. S. T. Dutton, — The School as a Social Institution.

Supt. A. K. Whitcomb, — Physical Defects of School Children.

State Supt. W. W. Stetson, — The Emotions as a Factor in Education.

State Commissioner Thomas B. Stockwell, — Some Things we are in Danger of Forgetting.

State Supt. Fred Gowing, — The Pedagogical Problem.

Hon. Alfred S. Roe (three lectures):—

The Bradford Manuscript.

The Frigate Constitution.

The Old State House.

Mrs. Kate Gannett Wells, — The Poems of Sidney Lanier.

Hon. Frank A. Hill, — Teachers for the Times.

Hon. J. D. Miller, — The Scarlet Letter.

Miss Caroline A. French, — The Marble Faun.

Prof. Louis H. Galbreath, — Child Study, — its Purposes and Promises.

Supt. J. D. Edgerly, — Thoroughness.

Col. Francis Parker, — The Child.

Rev. Abram Conklin, — A Walking Tour through England and Scotland.

Mrs. Olive Thorne Miller (three lectures) :—

Bird Study.

1. The Finches.
2. The Thrushes.
3. Hints for Observing and Identifying.

Mr. George H. Martin,—The Artist and the Artisan.

Hon. William H. Olin and Hon. John W. Kimball,—Memorial Day addresses.

Rev. J. DeWolf Perry,—Baccalaureate sermon on Concentration.

Rev. Alexander McKenzie delivered the address at graduation.

Miss Lucy A. Denny has given ten lectures or lessons on Chalk Modeling.

NEEDS OF THE SCHOOL.

The most pressing need is more time in which to do the work which must be done with high school graduates before they should be allowed to teach without the close, careful, sympathetic supervision that is given in the practice schools. Chancellor Payne, in the report before referred to, states very clearly one part of the work which the normal school must do. “A teacher must first of all be a scholar, both in attainment and spirit; but, in addition to that knowledge which every well-educated man should possess, he must also have that special and specific knowledge which distinguishes the teacher from the mere scholar. All the professions stand in the same case. The lawyer, the physician, the clergyman, must be scholars, but each must also have that special knowledge which fits him for the practice of his profession,—knowledge which educated men in general need not have. There is knowledge of this specific sort for the teacher’s professional use, and it is this which differentiates a normal college from the college of the ordinary type. The history and the science of education; the principles of school organization and school management; the science of education values; school hygiene and school legislation; the construction of rational courses of study for schools of various grades; the principles of school supervision,—these and kindred subjects comprise a vast field of study, and constitute a body of special or professional knowledge of larger volume than that which enters into the education of the clergyman or the lawyer.” But the

normal school should do more than this. Its graduates should not be sent forth as teachers fitted only in scholarship and theoretical knowledge of teaching. The art of teaching is acquired only through practice, and the first practice should be under the supervision and guidance of the normal schools. Schools for this purpose are furnished the Fitchburg Normal School by the city of Fitchburg. With but two years in which to do the work, some part of the necessary preparation must be slighted. With the present number of normal schools so scattered throughout the State that it is possible for nearly all the students to attend and live at home, there seems to be no good reason why the State should not require a minimum course of three years.

The second need of the Fitchburg Normal School is for a building in which to place the model schools. The city of Fitchburg, in accordance with its contract with the State, is willing to furnish model schools; but it has no building near enough to the normal school so that the model schools in such a building can be used effectively. Because of this, five rooms on the first floor of the normal school building are at present given up to the use of the model schools. The departments of English, history and mathematics need these rooms very much, and the work of the school will be hindered until the present order of things is changed. On the other hand, the building not having been planned for the use of school children, the sanitary arrangements are not and can not be made what they should be in a building accommodating one hundred and fifty to two hundred children. The State should take some step, either alone or in conjunction with the city of Fitchburg, to relieve the present condition of affairs.

The statistics for the year ending Aug. 31, 1898, are as follows:—

Number of students for the year, 113, — 111 women, 2 men; number in the entering class, 43 women; number of graduates for the year, 53 (12 of these also graduated the previous year from the two years' course); number receiving certificates for special courses, 9.

Whole number of students admitted since the opening of the school, 201, — 196 women, 5 men.

Number of States represented in the membership of the school for this year, 5.

Number of counties in Massachusetts represented, 2.

Number of towns in Massachusetts represented, 41.

Average age of the entering class, 20 years, 4.1 months.

Number who have had experience as teachers, 12.

Occupation of parents: skilled laborers, 7; farmers, 6; superintendents and foremen, 3; merchants, 2; contractors, 2; professional men 4; engineer, 1; railroad men, 3; machinists 2; bookkeepers, 3; public official, 1; not living, 9; total, 43.

Number of pupils in school Dec. 1, 1898, 94.

JOEL D. MILLER,
ELMER H. CAPEN,
Board of Visitors.

STATE NORMAL SCHOOL, WESTFIELD.

CHARLES S. CHAPIN, PRINCIPAL.

INSTRUCTORS.

CHARLES S. CHAPIN, A.M., principles of teaching, school economy and school law; CHARLES B. WILSON, A.M., natural science; WILL S. MONROE, A.B., psychology, historical pedagogy and geography; EDITH S. COPELAND, drawing; EDITH L. CUMMINGS, manual training and gymnastics; ADELINE A. KNIGHT, history, literature and English; MILDRED L. HUNTER, natural science and mathematics; A. LOUISE ROGERS, supervisor of music.

Training School: JEAN R. AUSTIN, eighth and ninth grades; JEANIE E. STODDARD, sixth and seventh grades; E. ABBE CLARK, fourth and fifth grades; FLORENCE P. AXTELLE, second and third grades; EUNICE M. BEEBE, first and second grades.

Kindergarten: EMMA L. HAMMOND.

THE TEACHING FORCE.

The only change in the teaching force has been due to the resignation of J. Leona Hale, who has married, and whose place has been filled by the selection of Jeanie E. Stoddard, a graduate of the Westfield Normal School, in 1894, and since that time a successful teacher in Brattleboro, Vt.

THE OUTLOOK.

The outlook for the Westfield Normal School is most encouraging. Within the last two years the teaching force has been strengthened, modern methods adopted and a feeling of confidence created. This has resulted in a marked increase in the number of students. The renewed confidence which the public manifest in the present condition and work of the school and the favorable judgments expressed by neighboring superintendents in regard to its spirit and methods make the success of the school assured. For this promising outlook the Board very largely is indebted to the tact, energy and good judgment

of Principal Chapin. Every part of the work has been urged with zeal and wisdom. Westfield reports a year of successful work in the service of the Commonwealth.

THE BOARDING HALL.

The increase in the number of pupils, noted above, has made certain changes in the boarding hall necessary. For the first time in five years the rooms on the fourth floor have been called into use. Of course these rooms were in no fit condition to receive the pupils. All have, therefore, been newly furnished. Within the past two years also, as already noticed, the rooms on the third floor have all been painted, papered and provided with new furniture. The principal reports that many additions in the way of new machinery must be made to the laundry, as in the present condition it is not at all adequate to the needs of so large a family. It is expected that these changes and additions will be made during the coming year. Under the efficient and sympathetic management of the matron, Mrs. C. B. Wilson, the internal affairs of the dormitory have been in a most satisfactory condition throughout the year.

TRAINING SCHOOL.

Westfield has an excellent principal, an efficient corps of teachers, a modern building, a comfortable, homelike dormitory, an increasing membership, a long roll of successful graduates, but it has one great and pressing need at the present time. For some time it has been evident that, if this old and honored school is to do its best work, meet all modern demands and maintain itself as the equal of the other normal schools of the State, its facilities for training its students in the practical work of teaching must be materially increased. Principal Chapin puts the case in this way : —

Besides our kindergarten, we have five training rooms, each accommodating twenty-eight pupils. In order to furnish practice teaching in the usual nine grades, we are compelled to divide our children into grades of only fourteen pupils each, and to place two grades in each room, to the detriment of both pupils and teachers. To provide one term of actual practice in teaching for each normal student in our senior class of fifty, we must place sixteen students each term in five

small rooms, *i.e.*, three students in each room. The number of training pupils in a room and the small size of the grades make our training school merely a school for observation, so far removed from public school conditions as to make the training received very unsatisfactory. This fact is apparent, not only to me but to every casual visitor, and furnishes the chief criticism against our school and the only considerable obstacle to our success as a first-class normal school.

By an unofficial arrangement with the superintendent of the public schools of Westfield we are now sending six of our students each term into those schools for training. This arrangement seems to be unsatisfactory, for the following reasons: —

1. The town accepts our pupil-teachers with the distinct understanding that they are in all respects town teachers, — that their connection with the normal school is severed during their term of training. The principal of the normal school has no other rights of supervision, direction, advice as to methods of teaching or as to curriculum than those that belong to any visitor.

2. Normal students are placed in the town schools where the numbers of children are greatest and where teachers need the most help, — an arrangement which may sometimes place them in charge of teachers whose example and advice are of doubtful value to the normal student.

3. Normal students in the public schools are placed at such distances from the normal school that to visit each one weekly would require three working days, — an amount of time that cannot be given by the principal of the normal school without prejudice to other legitimate and pressing work. Under these conditions students in the town schools get little supervision, and that of such an infrequent and desultory character as to be of small value.

In short, the normal school has nothing to say about the quantity or quality of the training of its students in the town schools, and yet must be held responsible by the public for a product which it does not make.

An intimate acquaintance with the situation convinces me that we must have better training facilities, and that we cannot gain these by any arrangement with the town of Westfield which does not include the ownership and control by the State of its own school building.

It will be remembered that the State has no claim upon the town of Westfield to furnish model and training schools. For this reason, the problem here discussed must be solved as it has

been or shall be for the other old schools. That it demands immediate attention is evident.

LECTURES.

During the year, lectures have been given before the school as follows :—

Jan. 15, 1898, Principal Charles H. Keyes, — Manual Training.

Jan. 22, Sarah L. Drew, — Glimpses along the Pathway of the Fine Arts.

Feb. 12, Principal Charles H. Keyes, — Life and Character of Abraham Lincoln.

March 5, Prof. B. K. Emerson, — Geology of the Connecticut Valley.

March 12, Hon. A. S. Roe, — Governor Bradford's History of Plymouth Plantation.

April 9, Mrs. Kate Tryon, — The Coming of the Birds.

April 23, Supervisor Geo. H. Martin, — The Artist and the Artisan.

May 7, Superintendent P. W. Search, — Some Things a Superintendent expects of Candidates for Appointment as Teachers.

Nov. 4, Prof. Charles B. Wilson, — Ants.

Nov. 12, Leon H. Vincent, — Nathaniel Hawthorne.

Dec. 10, Leon H. Vincent, — James Russell Lowell.

Dec. 16, Prof. Charles B. Wilson, — Life at the Seashore.

The address at graduation was given by Supt. Geo. I. Aldrich of Newton, a member of the Board.

THE TRIENNIAL.

On Saturday, June 18, 1898, the regular triennial gathering of the alumni was held at the school building. The dinner was served in the assembly hall, under the direction of Mrs. C. B. Wilson, assisted by members of the junior class as waitresses. The attendance was the largest in several years, nearly four hundred being seated at the tables. Hon. John W. Dickinson, principal of the school from 1856 to 1877, and Hon. M. B. Whitney, for sixteen years chairman of the board of visitors, were the guests of honor, and made the principal addresses of the afternoon. Many interesting and witty speeches were made by prominent alumni, all of whom expressed their continued loyalty to the school. Not the least interesting incident of the

occasion was the subscription by the alumni of funds for the purchase of a portrait of Ex-Principal Dickinson, to be placed in the assembly hall. A marked feature of the gathering was the presence of many of the older alumni. The class of 1844, the first in the history of the school, was represented by five members, and few classes in the fifty-four subsequent years were unrepresented. Class reunions were held during the forenoon, and many old associations were renewed. The reunion was successful in every way, and proved to be a genuine revival of enthusiasm and loyalty to this historic school.

The statistics of the school for the year 1897-98 are as follows:—

Number of pupils admitted to the Westfield Normal School since its organization, 4,162; number graduated since 1855, 1,525. Number graduated June, 1898, 36, — 34 women, 2 men.

Present number of pupils, 112. Number of different pupils in attendance from Jan. 1, 1898, to Jan. 1, 1899, 160.

Number examined for admission in 1898, 72; number of candidates admitted, 61.

Residences of those admitted: Hampden County, 30; Franklin County, 8; Hampshire County, 7; Berkshire County, 4; Bristol County, 1; Worcester County, 1; total from Massachusetts, 51; Connecticut, 8; New Hampshire, 2; total from other States, 10. Total, 61.

From Holyoke, 13; Springfield, 6; Montague, 4; West Springfield, 4; Chicopee, 3; Northampton, 3; Westfield, 3; Greenfield, 2; South Hadley, 2; Blandford, Dalton, Deerfield, Fall River, Granby, Great Barrington, Greenwich, Hardwick, Northfield, Pittsfield and Stockbridge, 1 each; total, 51. From other States, 10. Total, 61.

Occupations of parents: farmers, 12; merchants, 7; mechanics, 9; overseers, 5; laborers, 4; contractors, 3; masons, 2; physician, 1; manufacturer, 1; architect, 1; lawyer, 1; dentist, 1; fireman, 1; engineer, 1; clerk, 1; carpenter, 1; undertaker, 1; not reported, 9. Total, 61.

Number of volumes added to the reference library during the year, 374. Total number of volumes and pamphlets in the library, 3,314.

J. D. MILLER,
FRANKLIN CARTER,
Board of Visitors.

SIXTY-SECOND ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

REPORT OF THE SECRETARY.

To the Board of Education and the General Court.

The sixty-second report of the secretary of the Board of Education is herewith respectfully submitted. The law requires that this report shall not only give information to the Board and the General Court upon the condition and efficiency of the public schools, but that it shall also offer suggestions to both your honorable bodies for the improvement of such schools. For the statistics in detail, on which the following summary is based, reference should be made to the Appendix.

SUMMARY OF STATISTICS FOR 1897-98.

I. Number of Public Day Schools.

1. Number of towns, 321; cities, 32. Total, 353.
All have made the annual returns required by law.
2. Number of public schools, the unit of comparison being a single school which has one head or principal, whether the school has one teacher or several, 4,616
Increase for the year, 115
3. Number of public schools based on the single class room as the unit of comparison, 9,863
Increase for the year, 306

II. Enrolment, Membership and Attendance.

1. Number of persons in the State between the ages of five and fifteen years May 1, 1897, 441,352
Increase for the year, 9,965
2. Number of persons of all ages in the public schools during the year 1897-98, 456,141
Increase for the year, 16,774
3. Average membership of pupils in all the public schools during the year 1897-98, 378,770
Increase for the year, 14,904

4. Average attendance in all the public schools during the year 1897-98,	349,147
Increase for the year,	14,202
5. Percentage of attendance based on the average membership,	92
6. Number of children under five years of age attending the public schools,	7,702
Increase for the year,	834
7. Number of persons over fifteen years of age attending the public schools,	44,700
Increase for the year,	2,814

III. Teachers and Wages.

1. Number of men employed as teachers in the public schools during the year,	1,174
Increase for the year,	54
2. Number of women employed as teachers in the public schools during the year,	12,029
Increase for the year,	306
3. Number of different teachers employed in the public schools during the year,	13,203
Increase for the year,	360
4. Number of teachers required by the public schools,	11,678
Increase for the year,	377
5. Number of teachers who have attended normal schools,	5,087
Increase for the year,	426
6. Number of teachers who have graduated from normal schools,	4,425
Increase for the year,	322
7. Average wages of male teachers per month in the public schools,	\$137 50
Decrease for the year,	\$7 30
8. Average wages of female teachers per month in the public schools,	\$51 44
Decrease for the year,	\$0 76

IV. Length of Schooling.

1. Aggregate of months (twenty school days each) all the public schools have been kept during the year,	92,020 $\frac{5}{8}$
2. Average number of months the public schools have been kept during the year,	9 $\frac{6}{20}$

V. High Schools.

1. Number of high schools,	261
Decrease for the year,	1
2. Number of teachers in high schools,	1,384
Increase for the year,	101

3. Number of pupils in the high schools,	38,133
Increase for the year,	1,905
4. Amount of salaries paid to principals of high schools, . .	\$365,217 38
Increase for the year,	\$2,706 08

VI. Evening Schools.

1. Number of cities and towns having evening schools, . . .	52
2. Number of evening schools,	740
3. Number of teachers,	1,262
4. Number of pupils: male, 22,514; female, 9,904; total, .	32,418
5. Average attendance,	16,714
6. Expense,	\$198,666 43
7. Increase in the number of pupils for the year,	2,618
8. Increase in the expense for the year,	\$12,804 01

VII. Cost of Schools (Taxation).

1. Amount raised by taxation and expended for the support of public schools, including only wages and board of teachers, transportation of pupils, fuel for the schools, and care of fires and schoolrooms,	\$8,292,320 12
Increase for the year,	\$555,504 64
2. Expense for transportation of pupils (<i>included</i> in the foregoing amount raised by taxation),	\$123,032 41
Increase for the year (<i>included</i> in the foregoing increase),	\$17,315 28
3. Expense of supervision for the year,	\$333,131 99
Increase for the year,	\$7,041 53
4. Salaries of superintendents (<i>included</i> in the foregoing amount for supervision),	\$209,039 13
Increase for the year,	\$1,293 47
5. Expense of books, stationery and school supplies, . . .	\$592,905 76
Increase for the year,	\$14,759 17
6. Sundries (school reports, school census, and such items as cannot be classified elsewhere),	\$335,449 77
Increase for the year,	\$39,098 99
7. Amount expended in 1897-98 for new schoolhouses, . .	\$2,719,912 01
Increase for the year,	\$511,930 23
8. Amount expended for alterations and permanent improvements in schoolhouses,	\$551,004 48
Increase for the year,	\$30,789 20
9. Amount expended for ordinary repairs,	\$543,153 81
Increase for the year,	\$13,004 92

VIII. Cost of Schools (Voluntary Contributions, etc.).

1. Amount of voluntary contributions for the public schools, .	\$91,955 20
Increase for the year,	\$83,103 08

2. Amount of local school funds the income of which can be appropriated to schools and academies,	\$2,999,102 26
Increase for the year,	\$207,494 13
3. Income of local funds appropriated to schools and academies,	\$137,674 67
Increase for the year,	\$8,238 41
4. Income of funds appropriated for public schools at the option of the town, as surplus revenue, tax on dogs, etc.,	\$103,797 98
Increase for the year,	\$4,730 09
5. Income of State school fund paid to towns in aid of public schools in 1898,	\$90,018 51
Increase for the year,	\$3,049 86

IX. Academies and Private Schools.

1. Number of incorporated academies,	55
2. Whole number of pupils in academies for the year,	5,817
3. Amount of tuition paid in the academies during the year,	\$417,711 20
4. Number of private schools,	363
5. Whole number of pupils in private schools during the year,	67,653
6. Amount of tuition (largely estimated),	\$694,943 00

X. Miscellaneous.

1. Expenditure from the State school fund for apparatus and books of reference for the year 1897-98,	\$2,994 42
Increase for the year,	\$95 67
2. Aggregate returned as raised by <i>taxation</i> and expended upon the public schools alone, <i>exclusive</i> of repairing, altering and erecting schoolhouses (see VII., 1, 3, 5 and 6),	\$9,553,807 64
3. Average based on the above (X., 2) for each child in the State between five and fifteen years of age,	\$21 64
4. Average based on the above (X., 2) for each child in the average membership of the public schools,	\$25 22
5. Aggregate returned as received from <i>all sources</i> , public taxation and private funds or contributions, and expended, upon the public schools alone, <i>exclusive</i> of repairing, altering and erecting schoolhouses (VII., 1, 3, 5, 6 and VIII., 1, 4, 5),	\$9,839,579 33
6. Average based on the above (X., 5) for each child in the State between five and fifteen years of age,	\$22 29
7. Average based on the above (X., 5) for each child in the average membership of the public schools,	\$25 97
8. Aggregate returned as raised (or to be raised*) by <i>taxation</i> and expended upon the public schools, <i>inclusive</i> of repairing, altering and erecting schoolhouses (See VII., 1, 3, 5, 6, 7, 8, 9),	\$13,367,877 94

* See footnote on next page.

9.	Average based on the above (X., 8) for each child in the State between five and fifteen years of age,	\$30 28
10.	Average based on the above (X., 8) for each child in the average membership of the public schools,	\$35 29
11.	Aggregate returned as received from <i>all sources</i> , public taxation and private funds or contributions and expended upon the public schools alone, <i>inclusive</i> of repairing, altering and erecting schoolhouses. (See VII., 1, 3, 5, 6, 7, 8, 9 and VIII., 1, 4, 5),	\$13,653,649 63
12.	Average based on the above (X., 11) for each child in the State between five and fifteen years of age,	\$30 93
13.	Average based on the above (X., 11) for each child in the average membership of the public schools,	\$36 04
14.	Percentage of the total State valuation raised by <i>taxation</i> and expended on the public schools for the purposes stated under VII., 1, . . . . .	.003 $\frac{3}{100}$
15.	Percentage of the total State valuation raised by <i>taxation</i> and expended on the public schools for the purposes stated under X., 2, . . . . .	.003 $\frac{53}{100}$
16.	Percentage of the total State valuation raised (or to be raised *) by <i>taxation</i> and expended on the public schools for the purposes stated under X., 8, . . . . .	.004 $\frac{94}{100}$

* Most of the money expended in erecting new buildings is borrowed on notes or bonds. Its payment by taxation, therefore, is usually distributed, through the agency of sinking funds or in other ways, over a series of years. Such money is reported for the year when it is actually expended on the buildings, not for the year or years when it is raised by taxation for purposes of repayment.

ANALYSIS OF STATISTICAL RETURNS FOR 1897-98.

THE YEAR COVERED BY THE RETURNS.

Diversities in School and Fiscal Years.—Both the fiscal years and the school years of the several towns and cities vary exceedingly. In 1895 the secretary gathered data about these years, with reference to determining whether it was possible to secure returns for the annual report of the Board of Education that should cover the same period of time for the entire State. The several towns and cities reported fiscal and school years as follows:—

	Towns.	Cities.	Totals.
Fiscal year ending in January,	41	3	44
“ “ “ February,	72	2	74
“ “ “ March,	130	1	131
“ “ “ November,	—	6	6
“ “ “ December,	57	18	75
Not reporting,	23	—	23
Totals,	323	30	353
School year ending in January,	29	—	29
“ “ “ February,	1	—	1
“ “ “ March,	182	4	186
“ “ “ June,	14	13	27
“ “ “ November,	2	2	4
“ “ “ December,	28	11	39
Not reporting,	67	—	67
Totals,	323	30	353

Further, the fiscal and the school years that end in the same months end frequently on different dates in those months. In some cases the fiscal and the school years coincide; in numerous cases they do not.

When superintendents of schools, and chairmen of school committees where there were no superintendents, were asked to express their views upon the expediency of beginning the school year for which returns should be made with the opening of the fall term, two hundred and sixty of them, including the superintendents of all the cities but four, expressed themselves in favor of so doing; the rest, to the number of 67, either favored school years coinciding with fiscal years, or said they were indifferent; while there were 26 who did not respond to the inquiry.

It is obvious, therefore, that the attendance returns received by the State cover a great variety of school years, that the money returns cover a great variety of fiscal years, and that the attendance returns for many communities cover different years from the money returns. While, ideally, the annual money returns and the annual school returns to the State should cover the same period of time for all the towns and cities, it is certain that a uniform fiscal year is out of the question. The requirement of such a year would create inconveniences out of all proportion to any attainable advantages. The grand annual total of fiscal facts about the schools answers the purposes of the State reasonably well, as do also the grand annual totals of attendance data, without reference to the several fiscal and school years for which they are returned; and the conclusions drawn from the relations of the one set of data to the other, as, for example, those relating to the cost of the schools per child, if not absolutely correct, are approximations to the facts close enough for most purposes.

A Uniform School Year. — It is perfectly feasible, however, and very desirable, that the attendance returns of the towns and cities should be based upon a uniform school year. What better period can be taken for a uniform school year than the natural, the commonly recognized, school year that begins in September and ends in June, — the year, in brief, that extends from the end of one long summer vacation to the beginning of the next? Most promotions go into effect in September; most new teachers enter upon their duties then; it is by general consent the time for turning over a new school leaf. The cities very generally report attendance facts for the year that runs from September to June, and the cities, it should be noted, include the majority of the children of the State. A large ma-

majority of the superintendents of schools and chairmen of school committees prefer to report for such a school year; the towns that have not expressed a preference for such a year can easily report for it. Most elementary and high schools, and all normal schools, technical schools and colleges recognize this year. Indeed, the long summer vacation of the schools marks a sharper division for most people in the State between an old year and a new than New Year's day itself. The school census hereafter is required by law to be taken in September, at the beginning of the natural school year. The enrolment of a school best begins then; registers are best opened then; errors from double enrolment are reduced to a minimum in such a year. No legislation is required to establish such a year; the voluntary, concerted action of all who make returns is enough.

The secretary, therefore, recommends that towns and cities, in making hereafter their annual returns to the State on or before May 1 in each year, base their school statistics proper, *i.e.*, all statistics that do not involve statements of annual expenditures, upon the school year that shall have come to an end with the summer vacation of the preceding year. In changing to this basis, it will be necessary at first in many cases to duplicate in part statistics that have already been reported. There is no objection to this, so long as the returns cover the full school year recommended. Fiscal returns will have to be made, as heretofore, for the fiscal years, whatever they may be.

Enrolment Facts. — The enrolment of the pupils of a school best begins when the school opens in September. It is likely, then, to be nearly completed by October 1 in most of the schools. Between that date and the close of the school year in the following June the number of additions to the enrolment list for most schools will be comparatively small. When the names of children are recorded on the enrolment list, their ages are given as they stand on the several dates of admission. In making returns to the State of the number of children under five years of age attending the public schools, the number over fifteen and the number between seven and fourteen, various practices have hitherto prevailed, each doubtless with some show of reason. If some particular date is selected on which the count should be made, those who are members of the school on that date may be correctly classified, either accord-

ing to their ages at the time of their first admission during the school year or according to their ages as reduced to the day of the count; but such a count would leave out all pupils who had left school before that date or entered it after. To reduce the ages of the different pupils during the school year to a particular date, as September 1, the date adopted in the school census, or any other day, and to base the count on the ages as thus reduced, would have the merit of a plan that includes all and accurately classifies them according to their ages at a given time, only many of the pupils would thus be assigned to age classes to which they did not belong when admitted, and might not belong at all during their presence within the school year. The following rule will yield, on the whole, the most satisfactory results: *When the enrolment list in the school register is complete for the school year (somewhere near the end of the school year), determine the numbers of children in the several statutory age classes from their names and ages precisely as they stand on this enrolment list.* Most of these ages will have been recorded in September; a few, at varying intervals thereafter. If this rule is uniformly obeyed, it will cover all the different pupils enrolled during the school year and do away with anomalies like those mentioned on pages 86 and 87. With irregularities of attendance on the one hand and ages forever changing on the other, the counting of age classes under any rule will have its embarrassments.

SCHOOL ATTENDANCE.

Enumeration and Enrolment of Children.

I. Table showing the Number of Children between Five and Fifteen Years of Age in the State, also the Annual Increase for Ten Successive Years, from May 1, 1888, to May 1, 1897.

	Number of Children.	Increase.		Number of Children.	Increase.
1888, . .	367,785	8,281	1893, . .	400,325	10,286
1889, . .	370,116	2,331	1894, . .	408,898	8,573
1890, . .	376,491	6,375	1895, . .	417,335	8,437
1891, . .	382,956	6,465	1896, . .	431,387	14,052
1892, . .	390,039	7,083	1897, . .	441,352	9,965
Average increase,			8,184		

General Increase.—The table shows an increase in the enumeration of 9,965. This is 4,087 less than the increase of last year, but 2,132 greater than the average increase for ten years past. In the following statement the county returns of the present report are compared with the county returns of the last:—

	1897.	1898.	Increase.
Barnstable,	4,264	4,263	4
Berkshire,	15,965	16,680	715
Bristol,	41,944	44,803	2,859
Dukes,	548	547	1*
Essex,	55,540	56,168	628
Franklin,	6,559	6,853	294
Hampden,	27,443	28,687	1,244
Hampshire,	9,361	9,532	171
Middlesex,	88,112	86,468	1,644*
Nantucket,	450	403	57*
Norfolk,	23,669	24,163	494
Plymouth,	16,120	16,539	419
Suffolk,	86,632	90,393	3,761
Worcester,	54,780	55,848	1,068
	431,387	441,352	9,965

* Decrease.

All the counties except Dukes, Middlesex and Nantucket show a gain in the number of children between five and fifteen. The losses in Dukes and Nantucket are slight; the loss in Middlesex is 1,644. The returns of Middlesex show a gain of 627 for 42 towns and a loss of 2,271 for 12 towns, the loss being distributed as follows: Arlington, 68; Ashby, 7; Ashland, 23; Belmont, 2; Framingham, 60; Holliston, 35; Hopkinton, 27; Lincoln, 16; Lowell, 1,958; Shirley, 27; Sudbury, 9; and Townsend, 39.

The Lowell Returns.—The Lowell census returns were considered at some length in the sixty-first report of the Board (see pages 78–80), because of a reported increase in the number of children so large as to merit special notice. This year there is a reported decrease equally surprising. The following statement gives a comparative view of the school census and the school returns of Lowell for five years :—

	Between 5 and 15, Census.	Between 8 and 14, Census.	Children of All Ages in Public Schools.	Children of All Ages in Private Schools.	Between 8 and 14, Public Schools.	Average Mem- bership, Public Schools.	Average Attend- ance, Public Schools.
1894, . .	14,229	8,176	11,877	5,441	7,025	8,360	7,748
1895, . .	13,788	8,401	13,212	5,650	6,301	9,328	8,561
1896, . .	13,343	7,700	13,013	5,767	6,892	9,748	8,848
1897, . .	16,390	10,221	13,465	5,906	7,038	10,041	9,182
1898, . .	14,432	7,927	13,386	6,165	6,727	10,067	9,307

In explanation of the extraordinary jump in the census returns for 1897, it needs to be said that the school census of Lowell, as made by the enumerators, found only 13,619 children between five and fifteen in the city on May 1, 1896. The superintendent of schools, however, found that in the public and private schools of the city there were on the same date 2,771 additional children between five and fifteen that were not found by the enumerators at all. Consequently, the enumerators' result of 13,619 was corrected by adding 2,771 thereto, so as to read 16,390, and this number was returned to the State in 1897. A similar correction was made in the return of the number of children between eight and fourteen. The census returns for 1898, however, show a heavy falling off (1,958) in the number of children in the city between five and fifteen, in the face of an increase of 180 in the total number of children in the public and private schools, and a still heavier falling off (2,294) in the number of children between eight and fourteen, when the falling off in the public schools for this class is only 291, that in the private schools, if any, not being given. It is an interesting question whether the corrected census returns of

Lowell for 1897 are nearer to the facts than the uncorrected census returns for the other four years. The following table is worth studying in this connection : —

	Ratio of Children between 5 and 15 to Children in Public and Private Schools for the State.	Children in the Public and Private Schools of Lowell.	Children between 5 and 15 in Lowell according to the State Ratio.	Children between 5 and 15 as returned by the Census Enumerators.	Excess of the Ratio Estimated over the Census Returns.
1894, . . .	85.8	17,318	14,859	14,229	630
1895, . . .	85.7	18,862	16,165	13,788	2,377
1896, . . .	85.0	18,780	15,963	13,343	2,620
1897, . . .	84.9	19,371	16,446	16,390*	56
1898, . . .	83.3	19,551	16,286	14,432	1,854

* This number is the enumerator's return of 13,619 corrected by the superintendent's addition of 2,771, as explained above.

The ratio of the number of children in the State between five and fifteen to the number of children in both the public and private schools is one, as the table shows, that slightly diminishes from year to year. If the same ratios hold good for Lowell, then the numbers between five and fifteen are really much larger than the enumerators find, and seem to support the census returns of 1897 as corrected by the superintendent. On the other hand, while the Lowell school returns indicate an unbroken gain in the average membership and attendance of the public schools, the returns of children between eight and fourteen in these schools indicate on the whole what looks like an inexplicable falling off, that is to say, a loss of 298 children between eight and fourteen in the public schools during five years does not seem to go well with a gain of 1,509 in the total membership, or of 1,707 in the average membership of those schools at the same time. Such difficulties of reconciliation are not confined to one city; they are frequent in the cities and not unknown in the towns. Why should Cambridge, for instance, whose returns are, in the main, carefully prepared, show a loss from 1894 to 1898 of 213 in the number between eight and fourteen attending the public schools, when the number attending the public schools shows an increase of 3,031

during the same time? During the same five years the number of pupils of all ages in the public schools of the State increased 55,532, while the number in the schools between eight and fourteen increased 19,785; that is to say, 36 per cent. of the increase in total membership came from children within the compulsory age limits. In Boston for the same time the increase of pupils of all ages in the public schools was 9,843, and the increase of pupils within the compulsory years in the same schools was 3,911, the latter being 40 per cent. of the former. It is interesting to know why gains in total membership should be accompanied by apparent losses of pupils within the compulsory years. Is it bad counting? The counting should be corrected. Do teachers try for the number by a wrong method? They should be set right; the rule on page 83 is framed for this purpose. Or is there some strangeness of conditions that permits a reduction in the number attending the public schools within the compulsory age limits, while the number of children in such schools is increasing by hundreds and even by thousands? It is important to know what that strangeness of conditions is.

It is hoped that, with the new school census, improved registers, a uniform school year and greater care all round, the school returns may improve in accuracy and trustworthiness. They are the only way in which many important features of the school movement of the State can be satisfactorily made known.

II. Table showing the Number of Different Children of All Ages in the Public Schools, with the Annual Increase from May 1, 1889, to May 1, 1898.

	Pupils of All Ages in Public Schools.	Increase.		Pupils of All Ages in Public Schools.	Increase.
1888-89,	363,166	Increase, 5,166	1893-94,	400,609	Increase, 8,864
1889-90,	371,492	Increase, 8,326	1894-95,	412,953	Increase, 12,334
1890-91,	376,986	Increase, 5,494	1895-96,	424,353	Increase, 11,400
1891-92,	383,217	Increase, 6,231	1896-97,	439,367	Increase, 15,014
1892-93,	391,745	Increase, 8,528	1897-98,	456,141	Increase, 16,774
Average increase,		.	.	.	9,813

Number of Children in the Public Schools. — The increase for the year is 16,774, — 8,174 in excess of the average increase for the past ten years. The total attendance is 77,361 in excess of the average membership of the public schools. The largest total membership of the schools at any one time is unknown, but it lies, of course, somewhere between the average membership and the entire number of different pupils that have attended the schools.

Number of Children in Schools, Public and Private. — If to 456,141, the number of different children in the public schools during the year, there are added 67,653 children, reported as being in private schools, and 5,817 children, reported as being in academies, the grand total of children at school in the State is found to be 529,611, as against 508,155 reported last year, — an increase of 21,456.

Private School Returns for Ten Years. — The following table gives the private school movement for the past ten years: —

III. Table showing the Private School Movement for the Past Ten Years.

	Number of Academies (chiefly incorporated.)	Number of Academy Pupils.	Number of Other Private Schools.	Number of Pupils in these Other Private Schools.	Total number of Private Schools.	Total number of Private School Pupils.	Total number of Public and Private School Pupils.	Ratio of Private School Pupils to all the Pupils in the State.
1889, . .	89	16,043	396	37,620	485	53,663	416,829	1 to 7.8
1890, . .	92	17,135	419	41,044	511	58,179	429,671	1 to 7.2
1891, . .	93	16,483	378	42,547	471	59,030	436,016	1 to 7.4
1892, . .	94	17,250	399	43,355	493	60,605	443,822	1 to 7.3
1893, . .	94	17,359	350	44,991	444	62,340	454,085	1 to 7.2
1894, . .	99	17,844	359	48,319	458	66,163	466,772	1 to 7.0
1895, . .	59	5,484	341	59,204	400	64,688	477,641	1 to 7.4
1896, . .	52	5,994	359	61,090	411	67,084	491,437	1 to 7.3
1897, . .	53	5,418	365	63,370	418	68,788	508,155	1 to 7.4
1898, . .	55	5,817	363	67,653	418	73,470	529,611	1 to 7.2

The large changes in the figures in passing from 1894 to 1895 are due in part to a more stringent classification of academies, as distinct from ordinary private schools, and in part to ruling out of the returns certain institutions that did not properly belong there, as explained on page 84 of the sixty-first report. The private schools show a gain in membership over the preceding year of 4,682. Barnstable and Dukes counties return no private schools. The following counties show losses: Hampden, 1,041; Nantucket, 10; Norfolk, 17; Plymouth, 79; Worcester, 982; total, 2,129. The following counties show gains: Berkshire, 25; Bristol, 513; Essex, 402; Franklin, 96; Hampshire, 12; Middlesex, 1,002; Suffolk (chiefly Boston), 4,761; total, 6,811.

The Private School Returns of Boston. — The returns of the city of Boston indicate an increase of 2,003 in the number of pupils attending public schools and an increase of 4,690 in the number attending private schools, while the State outside of Boston shows an increase of 14,771 in the number attending public schools and a decrease of 8 in the number attending private schools. Whether the somewhat striking increase reported in the private school attendance of Boston is as real as it seems is not altogether certain. It may be due to greater thoroughness in gathering private school data. The private school returns of Boston, as well as those of the State, were considered at some length in the sixty-first report, pages 82 and 87.

A Comparison between Boston's Attendance Returns and Those of the Rest of the State. — The following tables give the attendance returns of Boston for two years and the corresponding returns for the rest of the State, with percentages of increase (fractions rejected) for each table: —

IV. Attendance Data for Boston for 1897 and 1898.

PUPILS.	Returns of May 1, 1897.	Returns of May 1, 1898.	Increase.	Per Cent. of Increase.
Between 5 and 15, as per school census, . . .	78,561	81,947	3,386	4
Between 8 and 14, as per school census, . . .	36,332	41,566	5,234	14
Of all ages in the public schools, . . .	79,852	81,855	2,003	3
Between 5 and 15 in the public schools, . . .	70,599	71,802	1,203	2
Under 5 in the public schools, . . .	1,850	1,967	117	6
Over 15 in the public schools, . . .	7,403	8,086	681	9
Between 8 and 14 in the public schools, . . .	38,330	39,702	1,372	4
Average membership of public schools, . . .	70,192	73,128	2,936	4
Average attendance of public schools, . . .	62,317	65,331	3,014	5
In private schools, . . .	12,439	17,129	4,690	38
In public and private schools, . . .	92,291	98,984	6,693	7

V. Attendance Data for the State, excluding Boston, for 1897 and 1898.

PUPILS.	Returns of May 1, 1897.	Returns of May 1, 1898.	Increase.	Per Cent. of Increase.
Between 5 and 15, as per school census, . . .	352,826	359,405	6,579	2
Between 8 and 14, as per school census, . . .	213,418	217,227	3,809	2
Of all ages in the public schools, . . .	359,515	374,286	14,771	4
Between 5 and 15 in the public schools, . . .	320,014	331,937	11,923	4
Under 5 in the public schools, . . .	5,018	5,735	717	14
Over 15 in the public schools, . . .	34,483	36,614	2,131	6
Between 8 and 14 in the public schools, . . .	195,950	200,664	4,714	2
Average membership of the public schools, . . .	293,674	305,642	11,968	4
Average attendance of the public schools, . . .	272,628	283,816	11,188	4
In private schools, . . .	56,349	56,341	8*	-
In public and private schools, . . .	508,155	529,611	21,456	4

* Decrease.

It was pointed out last year (page 91 of the annual report) that the State census found 45,568 children in Boston between eight and fourteen years of age on May 1, 1895. The Boston enumerators, however, found on May 1, 1896, only 36,332 children between eight and fourteen,—a number 9,236 less than the State census found a year earlier; and on May 1, 1897, only 41,566,—a number 4,002 less than the State census found two years before. But as far back as May 1, 1893, the Boston enumerators found, according to their report, 41,198

children between eight and fourteen, — a number almost as large (lacking only 388) as they found four years later. During these four years the city has been growing rapidly, the number of children of all ages in the public schools has increased by 9,751 (with an accompanying but not certainly known increase in the private schools), and the number of children between eight and fourteen in the public schools has increased by 3,911 (the increase in private schools being unknown). Returns made by the public schools of the city to the school committee may be accepted as trustworthy; if they indicate large numerical growth, especially if the private schools are growing at the same time, the indication must be accepted as conclusive. And parallel school census returns that indicate little or no growth, or even a loss, during the same period cannot but be under a cloud. The difficulties of taking a thorough census of all the children of school age in a community, especially in a great city, are undoubtedly greater than those of counting such children of school age as are in the public schools of that community. Still such difficulties ought not to be regarded as insuperable.

The School Census. — The school law of 1898 requires that this census shall now be taken in September instead of May, and finished by October 1; that it shall give the names and ages of children residing in their respective towns and cities September 1, with such facts as may be required; and that the blanks therefor shall be furnished by the State. It is earnestly desired that school committees shall take special pains to secure an accurate house-to-house census.

The State is expending vast sums of money for the education of its youth; it is directly expending other large sums on account of its criminal classes, which are largely recruited from youth that grow up in ignorance and idleness; it is suffering great indirect losses from such ignorance, idleness and crime as it fails to prevent; — losses none the less real because so difficult to measure or even to describe. The greatest dangers to which it is exposed from its own citizens come not from the multitudes of youth that move regularly and dutifully through its schools, but from those smaller numbers that the schools do not reach or only slightly touch, and that contribute far more freely to the hoodlunism and crime of communities than the

properly schooled. It becomes the State to put its great foot down, and see to it that such children when in their plastic and redeemable stages shall attend school, public or private, as the choice may be, or, if intractable because of conduct therein or absence therefrom, be sent to a truant school. It is far cheaper, as a money investment, to say nothing of the immeasurable moral investment in such a case, to save a child from becoming a criminal than to deal with him after he has become one. It is indispensable, therefore, that the school authorities shall keep a watchful eye upon such children as might otherwise escape the beneficent influences of the schools. An accurate school census is a very important aid to the authorities in exercising such supervision.

A State Attendance Officer. — The report on the truancy conditions of the State, by Mr. George A. Walton, printed in the fifty-ninth annual report, pages 529–587, shows conclusively why and plainly indicates where our compulsory attendance law, in certain respects, has not been so strong and effective as the welfare of the State has required. The Legislature of 1898 has strengthened the law somewhat. It remains, however, with the local authorities, as in the past, to enforce it. They should take pains in particular to secure the following: —

1. An accurate school census, to tell what children should go to school.
2. Accurate school records, to show whether such children attend school or not.
3. Faithful truant officers, to follow up such delinquents as milder measures cannot reach.

The school records usually tell their part of the story as they ought. Local authorities, however, have frequently been very remiss about the census and the work of the truant officers, this remissness being sometimes due to the conservatism or inertia of the school authorities themselves, but more frequently to local conditions which they find it hard or impossible to overcome. A State attendance officer or officers, properly empowered to stimulate, co-operate with, supplement or otherwise strengthen the local agencies, would greatly increase the effectiveness of the law. For many years the State Board of Education has earnestly recommended the appointment of such an officer. A provision requiring such an appointment was

incorporated in the school bill of last winter, but was stricken out just before the bill become a law.

It is worth while to reproduce here from Mr. Walton's report some of the more laconic answers, given by persons familiar with the facts, to the question, "What are the difficulties in the way of enforcing the laws?"

"Committees do not want to enforce the law against neighbors."

"Officers reluctant to enter complaints against friends and neighbors."

"Officers regard the feelings of their neighbors."

"School committee unwilling to take action."

"Truant officers appointed but not employed."

"Officers members of school committees."

"Neglect of officers from want of support."

"Foreigners fail to appreciate school privileges, — too poor to pay large fines."

"Parental indifference and need of children's work."

"Parents are here to get the work of the children."

"Truant laws cannot be enforced upon poor people."

"Children dodge between the public and the parochial schools."

"Truant officers are the school committee, and hesitate to act."

"Officers disinclined to put penalty on parent or child."

"Timidity or reluctance of officers."

"Local officers will not enforce the law."

"Truant officers do not visit the schools."

"More money needed in the truancy service."

"No system of reporting to the truant officers."

"The two dollars a week charged upon the town."

"Parents don't know of child's absence."

"Law not executed in good faith."

"General indifference of committee."

"School committee fear to make enemies."

"Six officers, of little account."

"Truant officers are not efficient." "No truant school to send to."

"The cost to the town." "Officers not on the alert."

"Parents shield their children." "Public opinion."

"Citizens lukewarm and parents poor." "Parents negligent."

"Twenty dollars fine too large." "Committees lax." "Indifferent officers."

From replies like these, at least three reasons for inefficiency in executing the laws may be inferred: —

1. A sluggish or defective public sentiment. The community does not seem to be awake to the evils of irregular attendance. Far from aiding the school authorities in suppressing these evils, it hampers them if they attempt such suppression.

2. The laxness or timidity of school committees. Either they are indifferent to the duties imposed upon them by the compulsory laws, or are afraid to discharge such duties.

3. The reluctance of truant officers to make complaints against their friends and neighbors.

Obviously the public sentiment of the State is in advance of public sentiment in many of the small towns. Perhaps school boards and truant officers would be more than mortal if they did not defer somewhat to public sentiment or to their friends and neighbors. Such boards, such officers need behind them, and probably would welcome, something more than the people's mandate as expressed in law. Some strong authority from the people should bring that mandate home to them in ways to make it effective. The excellent truant service, however, of some of our larger places needs little help of this sort.

Registers and the Service of Truant Officers for Private Schools. — The recommendations made in his last report about furnishing registers and the service of truant officers to private schools seem to the secretary so clearly in the interests of the schools both public and private, that he deems it his duty to keep them before the public for further consideration and to call attention to the reasons for them, as given on pages 88 and 89 of that report. The chief if not the only objection thus far publicly urged against furnishing such registers and service is that it might prove to be an entering wedge to securing some sort of State control of private schools, — how or to what extent it is not stated, — an objection that may be so presented as to inflame a certain class of minds against the proposition. It is true that the State wants every child of school age to attend a good school, and to attend it regularly; but the right of the parent to choose whether he shall send his child to a public or a private school is indisputable. The same pains should be taken to insure regularity of attendance at the one as at the other. Neither should be used in any way to cover up non-attendance at the other. There are private schools that

would welcome such aid. There are some, indeed, that are now receiving it so far as the service of truant officers is concerned. Indeed, it is now the statutory duty of truant officers to see that persons having under their control children of school age shall send them to school, and that children of school age shall go to school, — a duty that seems to carry with it — it certainly ought to carry with it — the right of truant officers to know whether children of school age are actually attending school, as the law requires. The school of the statutes is either a public school or a private school, as the person who controls the child may elect. There are sound reasons why this implied duty of truant officers should be brought out in the statutes in unmistakable terms, and why the private schools should be furnished by the State with the appropriate blanks, that they may coöperate efficiently, as is their duty and presumably their desire, with the constituted authorities in securing the full and regular attendance of children at school.

VI. Table showing the Attendance upon the Public Schools of Children whose Ages are between Five and Fifteen Years, also of those under Five and over Fifteen, with their Annual Increase and Decrease, from May 1, 1889, to May 1, 1898.

	Pupils in School between Five and Fifteen Years of Age.	Increase.	Pupils under Five Years.	Increase and Decrease.	Pupils over Fifteen Years.	Increase.
1889, .	331,228	Increase, 3,949	1,130	Decrease, 48	30,758	Increase, 1,215
1890, .	336,100	Increase, 4,872	2,578	Increase, 1,448	32,814	Increase, 2,056
1891, .	339,953	Increase, 3,853	3,129	Increase, 551	33,904	Increase, 1,090
1892, .	345,215	Increase, 5,262	2,912	Decrease, 217	35,090	Increase, 1,186
1893, .	353,067	Increase, 7,852	3,283	Increase, 371	35,395	Increase, 305
1894, .	359,762	Increase, 6,695	3,742	Increase, 459	37,105	Increase, 1,710
1895, .	367,047	Increase, 7,285	4,469	Increase, 727	39,437	Increase, 2,332
1896, .	377,067	Increase, 10,020	5,630	Increase, 1,161	41,656	Increase, 2,219
1897, .	390,613	Increase, 13,546	6,868	Increase, 1,238	41,886	Increase, 230
1898, .	403,739	Increase, 13,126	7,702	Increase, 834	44,700	Increase, 2,814
Average increase, 7,646			Average increase, 652		Average increase, 1,515	

Comments on Table VI. — The number of children between five and fifteen years of age in attendance upon the public schools has increased during the past ten years about 22 per cent. ; the number under five, 582 per cent. ; and the number over fifteen 45 per cent. These figures reflect in some measure the growth of the public kindergarten at one end and of the public high school at the other end. They indicate a tendency to begin the public education of children earlier than in the past and to continue it later, — a tendency, in brief, to a greater length of schooling.

REGULARITY OF ATTENDANCE.

VII. Table showing the Average Membership and Yearly Increase of Membership of the Public Schools; also the Average Attendance, the Yearly Increase and the Ratio of Attendance for Ten Years, from May 1, 1889, to May 1, 1898, inclusive.

	MEMBERSHIP —		ATTENDANCE —		
	Average.	Increase of Average.	Average.	Increase of Average.	Ratio of, to Membership.
1889, . . .	299,537	5,596	270,851	6,128	.90423+
1890, . . .	303,524	3,987	273,910	3,059	.90240+
1891, . . .	307,953	4,429	278,602	4,692	.90450+
1892, . . .	313,214	5,261	283,648	5,046	.90560+
1893, . . .	320,862	7,648	290,801	7,153	.90630+
1894, . . .	328,455	7,593	299,069	8,268	.91050+
1895, . . .	341,671	13,216	313,693	14,624	.91810+
1896, . . .	349,336	7,665	321,685	7,992	.92080+
1897, . . .	363,866	14,530	334,939	13,254	.92050+
1898, . . .	378,770	14,904	349,147	14,208	.92170+
		Av., 8,482		Av., 8,442	

Comments on Table VII. — The increase in the average membership of the public schools was 14,904 ; in the average attendance, 14,208. If there had been absolutely the same increase in number for both the average membership and the average attendance, the attendance would nevertheless have gained relatively on the membership. There is a chance, therefore, for the average attendance to show a little less gain in

number than the average membership shows, and yet to show at the same time, as in the present case, a gain in percentage.

VIII. Table showing by Counties the Number of Towns whose School Attendance, based on the Average Membership, equals or exceeds Ninety Per Cent. for the Year 1897-98.

COUNTIES.	Number of Towns In County.	Number of Towns In County, At- tendance over 90 Per Cent.	COUNTIES.	Number of Towns In County.	Number of Towns In County, At- tendance over 90 Per Cent.
Barnstable, .	15	15	Hampshire, .	23	16
Berkshire, .	32	14	Middlesex, .	54	52
Bristol, . .	20	12	Nantucket, .	1	1
Dukes, . .	7	3	Norfolk, .	28	26
Essex, . .	34	29	Plymouth, .	27	22
Franklin, .	26	22	Suffolk, . .	4	3
Hampden, .	23	19	Worcester, .	59	53
Totals,				353	287

Diversities of Practice to be remedied. — As was pointed out last year (pages 93 and 94 of the annual report), the value of the foregoing table is greatly impaired by certain diversities of practice both in dropping names from membership and in refraining to register persons as absent who are dismissed before a session is hardly begun or come in tardy just before it closes. The school legislation of 1898 aims to secure a greater degree of uniformity in determining attendance data. Section 19, chapter 496, makes, in particular, the following requirements: —

1. That, in reckoning the average membership and percentage of attendance, no pupil's name shall be omitted, in counting the number of persons belonging to the school and the number of absences of such persons, *until it is known* that such pupil has withdrawn from the school without intention of returning, or, in the absence of such knowledge, *until ten consecutive days (or twenty consecutive half days) of absence have been recorded.*

2. That a pupil who is not present at least half of a session shall be marked and counted as absent for that session.

The Boston rule, for instance, has been to drop a name after twenty days of unexplained absence; the State rule, after five days. And some teachers have gone so far, after recording five days of absence and then dropping the pupil from membership, as actually to expunge the recorded absence, on the ground that the pupil may be just as constructively regarded as having left at the beginning of the five days as at the end! The law has now fixed upon a compromise period of ten days; there seemed to be no other way of getting the schools together in the matter. The result will be a lower percentage of attendance hereafter, except for Boston, but a record nearer the true state of things. The law that tardiness and dismissal shall be regarded as absences when they involve more than half the session substitutes uniformity for another set of diverse practices. Heretofore the same degrees of non-attendance were treated as absences in some towns and presences in others. The result here will also be a lower percentage of attendance, but a record nearer the true condition of things. The law practically puts a premium on looking sharply after absentees.

IX. Table showing the Number of Towns in the Several Counties the Ratio of whose School Attendance falls below Ninety, also the Percentage of this Number to the Number of Towns in the County.

COUNTIES.	Number of Towns in County.	Number of Towns below 90 Per Cent.	Ratio to Whole Number of Towns in County.	COUNTIES.	Number of Towns in County.	Number of Towns below 90 Per Cent.	Ratio to Whole Number of Towns in County.
Barnstable, .	15	-	-	Hampshire, .	23	7	.30
Berkshire, .	32	18	.56	Middlesex, .	54	2	.03
Bristol, . .	20	8	.40	Nantucket, .	1	-	-
Dukes, . . .	7	4	.57	Norfolk, . .	28	2	.07
Essex, . . .	34	5	.14	Plymouth, .	27	5	.18
Franklin, . .	26	4	.15	Suffolk, . .	4	1	.25
Hampden, . .	23	4	.17	Worcester, .	59	6	.10
Totals,					353	66	.18

Comments on Table IX. — The number of towns whose percentage of attendance falls below 90 is 66; a year ago it was 65 and two years ago 66. After the new requirements relating to the basis for determining attendance facts have been in force for a year or two, the number of towns to fall below 90 will be considerably increased, even though the real attendance should continue to be as good as ever. This is another way of saying that percentages of attendance have probably been higher through indulgent practices than the facts really warrant.

High Percentages of Attendance. — High attendance percentages usually mean ambition and watchfulness on the part of the teachers and pride in the school on the part of the pupils, — traits that usually imply efficiency and profit in the work of the school. The earnestness to secure high percentages, not for their own sake, but for what they imply or involve, is commendable. It is quite possible however, that the pressure for perfect attendance is most effective where it is least needed and least effective where it is most needed. Sensitive, ambitious and responsive children would rather risk their health than break their own or the school record. Over against them must be set those children whose attendance is so broken that their schooling is sadly impaired, and sometimes so erratic that they seem to be occasional visitors to the school rather than members of it. It may be misfortune that causes the irregularity; it may be negligence or even wilfulness. In the one case, it must be endured with such grace as is possible; in the other, all pressure should be brought to bear to stop it. So vexatious and altogether bad is needless irregularity that the teacher would be more than mortal who should not breathe a sigh of relief when particularly exasperating cases are dropped from the membership roll, and the burden of them thus rolled off from the mind. Nevertheless, these are precisely the cases that need the most thought, that ought to be most sharply followed up, that merit the chief pressure. To let them slide when possibly they might be saved is immeasurably less creditable to the school and the school authorities than to save them when it is possible to let them slide. In the one case the school gets on more comfortably, but the child, the family and the State have to suffer for it; in the other, the school has a harder time, but the child, the family and the State are the gainers for it.

Indeed, there is a strong argument here for never dropping a name from membership until the membership comes to a real and legitimate end; so that the new State rule of non-membership after ten days of unexplained absence, though much more stringent than the indulgent rule of the old State register, may yet defer too much to the desire for a high attendance record and too little to the welfare of the irregular child.

X. Table of the Several Counties, arranged according to the Percentages of their Number of Towns, having Less than Ninety Per Cent. of Attendance.

COUNTIES.	Per Cent.	COUNTIES.	Per Cent.
Nantucket,	—	Hampden, . . . .	.17
Barnstable,	—	Plymouth, . . . .	.18
Middlesex, . . . .	.03	Suffolk, . . . .	.25
Norfolk, . . . .	.07	Hampshire, . . . .	.30
Worcester, . . . .	.10	Bristol, . . . .	.40
Essex, . . . .	.14	Berkshire, . . . .	.56
Franklin, . . . .	.15	Dukes, . . . .	.57

Comments on Table X. — The position of Suffolk in the table is probably due not to a poorer attendance but to a greater stringency in determining the facts of attendance. After the new law for computing attendance has been in force a year or two, Suffolk's position in the table will probably be nearer the head.

Towns with an Average Attendance of Less than Eighty Per Cent. — For several years a list of towns whose percentage of attendance is under 80 has been prepared. The number has been gradually reducing so that last year there were only two in the list and this year only one, — Alford, with a percentage of 77. In the few cases that get into this list there are usually special or exceptional reasons of some strength for the low attendance.

HIGH SCHOOLS.

XI. Table showing the Number of High Schools in the State for Ten Years, from 1889 to 1898, with the Number of Pupils attending; also their Ratio to the Whole Number of Children in All the Schools.

YEAR.	Schools.	Pupils.	Ratio of Pupils in H. S. to School Enrolment.	YEAR.	Schools.	Pupils.	Ratio of Pupils in H. S. to School Enrolment.
1889, .	236	24,139	.066	1894, .	255	30,540	.076
1890, .	241	25,317	.068	1895, .	252	32,752	.079
1891, .	244	26,294	.069	1896, .	257	34,323	.080
1892, .	242	27,482	.071	1897, .	262	36,228	.083
1893, .	247	28,582	.072	1898, .	261	38,133	.084

Continued Gain in the High School Enrolment. — The annual gain in the ratio of the high school enrolment to the total school enrolment which the foregoing table exhibits is still kept up. This enrolment is now one twelfth of the total enrolment. In a system of nine grammar and four high school grades the high school enrolment can never exceed four thirteenths of the total enrolment if all the children should in due season attend the high school; so that if one thirteenth of the children should be actually found in the high school it would follow that one fourth of the children, or twenty-five per cent. of them, avail themselves at the appropriate time of high school privileges. Inasmuch as one twelfth of the children are now in high schools, — a larger fraction than one thirteenth, — it is safe to say that more than twenty-five per cent. of the children of the Commonwealth succeed in entering the high school; and this percentage is increasing much faster than the population. Indeed, there are many towns in the Commonwealth, as was shown in detail in the last report of the Board, pages 100-104, where the percentage of enjoyment rises to 40, 50 and even 60. The facts of enjoyment are in striking contrast with a popular misapprehension, hard to correct, that 92 per cent. of our youth never reach the high school.

How far the Public High School is worthy of Public Support. — For a discussion of the question, “How far the public high school is a just charge upon the public treasury,” see the secretary’s address, given before the New England Association of Colleges and Preparatory Schools at its Springfield meeting, Oct. 15, 1898. The paper was prepared to show not only this association but the Commonwealth how vital a part the high school is of the public school system, how strongly entrenched it is in the respect and affection of the people, and how worthy it is of the support it now receives, and of such additional support as may be needed to increase its efficiency. It is printed in the appendix of this report. Accompanying it is a presentation of the high school statistics of the State, many of them new and impressive, and most of them of special interest to all who would foster secondary education.

XII. Table showing the Distribution of the High Schools among the Several Counties of the State; also what Ratio of the Whole Population has Access to High Schools at Home.

COUNTIES.	Number of Towns in County.	Number of Towns required to keep High Schools.	Number of Towns having High Schools.	Number of High Schools.	Ratio of Population having Access to High Schools.
Barnstable,	15	7	12	13	94.10 per ct.
Berkshire,	32	8	12	12	85.80 “
Bristol,	20	10	10	12	93.00 “
Dukes,	7	—	3	3	74.60 “
Essex,	34	22	27	29	97.80 “
Franklin,	26	4	9	10	65.20 “
Hampden,	23	8	8	8	90.03 “
Hampshire,	23	6	11	12	85.90 “
Middlesex,	54	34	47	50	98.70 “
Nantucket,	1	1	1	1	100.00 “
Norfolk,	28	20	27	29	99.20 “
Plymouth,	27	14	20	20	93.90 “
Suffolk,	4	4	3	14	98.60 “
Worcester,	59	31	46	48	95.80 “
	353	169	236	261	95.70 Av.

Comments on Table XII. — There are 117 towns that have no high schools of their own, but have to pay for the tuition of their properly qualified children in the high schools of other towns. The 236 towns with high schools of their own have a population of 2,392,823 by the census of 1895; the remaining 117 towns have a population of 107,360. It appears, therefore, that 95.7 per cent. of the population of the State have high schools at home, while 4.3 per cent. must depend upon the high schools of their neighbors.

High Schools returned This Year but not Last. — The following schools appear in this year's returns of the school committees, but not in the returns of last year: —

TOWNS.	Number of Teachers.	Number of Pupils.	Length of Schools.	Salary of Principal.
Boston,	—	—	—	—
Carver,	1	19	5-10	\$525
Westford,	2	32	9-15	1,700
	3	51	—	—

Boston is credited with 12 high schools this year, instead of with 11, as last year. Carver has organized a high school for the first time. The Westford high school is really the Westford Academy. The town has recently decided to appropriate money for it under the academy tuition laws (chapter 94, Acts of 1895), so that now it practically serves as a free high school for the properly qualified children of the town.

High Schools returned Last Year but not This. — The following were returned as high schools last year but not the present: —

TOWNS.	Number of Teachers.	Number of Pupils.	Length of Schools.	Salary of Principal.
Brimfield,	1	22	10—	\$1,000
Somerset,	1	16	9-19	700
South Hadley,	2	25	9—	700
Tyngsborough,	1	18	9-7	504
	5	81	—	—

The Hitchcock free high school of Brimfield was not returned this year, doubtless because it is not under public control. It is as fully entitled to be counted as a public high school, however, as several schools that are so counted. Somerset voted recently to discontinue its high school and to pay for the tuition of its pupils elsewhere. South Hadley has for many years supported two high schools. They were consolidated into one April 5, 1897. In Tyngsborough provision is made for one year's work only in the high school, the pupils thereafter entering upon the second year's work of the Lowell high school.

Schools and Academies privately endowed that practically serve as Public High Schools. — There are several schools in the State that, though privately endowed, nevertheless serve as public high schools for their respective communities. They offer free tuition, or, if there is any expense to the pupils, it takes the form of a slight charge as for text-books and supplies. Some of these schools are under complete private control. Some of them, by agreement of trustees and school boards, are under the financial control of the former and the educational control of the latter. To some of these schools the towns contribute nothing whatever; to others they appropriate money to cover in part or in full the tuition of those children of the town that attend them. Some of them are returned by school committees as public high schools, some are not so returned, and some are returned one year but not the next. When an attempt is made to distinguish between public high schools and private academies, the natural division would seem to come between those schools that are "under the order and superintendence of the authorities of the town or city" and those that are not. But this line is not an easy one to follow, and when it is followed the classification does not yield a satisfactory view of the high school situation. Interesting legal questions often arise as to the relations of these schools to the towns where they are located and whose welfare they so largely serve, but they do not often reach an acute stage. Some of these schools are old and famous. They have kept the altar fires of secondary education burning brightly when all around has been dark. The State once handsomely aided some of them as quasi-

public institutions. Many of them are doing admirable work to-day. It would be a great misfortune, on the one hand, for the educational energies of the towns where such schools are established to be divided between two classes of high schools, one public and the other private. It is often difficult, on the other hand, to find common ground on which the towns and the trustees may stand when the former aim to act legally in voting money for these schools and the latter think of loyalty to their trust. In many cases it is not necessary to find such common ground; in some cases it seems desirable, if not imperative, to make the attempt; in still other cases towns act under the academy tuition law in appropriating money, notwithstanding the formal opinion given by the Attorney-General to the Legislature that this law is unconstitutional. The law still stands, it is claimed, and until it is repealed or overruled by the supreme court it may be safely obeyed.

The following table gives a list of these schools and of interesting facts about them:—

XIII. Table of Academies serving as High Schools.

High School or Academy.	Control.	Authority of School Committee.	Appropriation by the Town.	Text-books and Supplies for Pupils of the Town.	Tuition for Pupils of the Town.	Remarks.
Andover, Pynchard Free School.	Eight trustees, — three clergymen, — five elected by town.	None, except that it pays all expenses for the care of the building owned by the town and rented to trustees.	None, except for the building it lets to its tenant.	School owns them; pupils pay \$3.75 each per year for use.	Free of Andover and North Andover.	Fund, \$75,000. Town relieved by law (chapter 77, Acts of 1856) from maintaining a high school. See Jenkins v. Andover, 105 Mass., for a discussion of the town's relations to the school.
Ashburnham, Cushing Academy.	Thirteen trustees, serving for life.	None.	\$1,500 for a high school, Cushing Academy being selected for the purpose.	Town pays for text-books, pupils pay for supplies.	Free.	Incorporated in 1865.
Ashfield, Sanderson Academy.	Nine trustees, life service, in charge of grounds, building and endowment.	Appoints teachers and supervises courses of study, instruction, etc.	Annual. It was \$750 for 1897-98.	Town pays for text-books in English; pupils, for other text-books and for supplies.	Free.	"Order and superintendence" of the school committee believed to be adequate.
Barnardston, Powers Institute.	School committee and twelve trustees elected by the town, each to serve three years.	Control vested in committee and trustees, under a plan that gives or may give the former large directive power.	Annual. It was \$313.37 for 1897-98.	Paid for by the pupils.	Free.	The Attorney-General pronounces the plan legal.
Billerica, Howe Academy.	Seven trustees, service unlimited.	None. Relations advisory.	None.	Free.	Free.	Town conditionally exempted by law (chapter 246, Acts of 1891) from maintaining a high school.
Boxford, Barker Free School.	Three trustees, life service.	None.	Required by law to furnish text-books and transportation.	Text-books free by law, but pupils have paid for them up to date (December, 1898).	Free.	Town conditionally exempted by law (chapter 541, Acts of 1898) from maintaining a high school.
Brimfield, Hitchcock Free School.	Thirteen trustees.	None.	None.	-	Free.	-

Deerfield Academy and Dickinson High School.	Five trustees, each serving five years.	None. Chairman has a voice in electing trustees.	None.	Pupils pay for their own text-books and supplies.	Free.	Incorporated as the "Deerfield Academy and Dickinson High School" in 1875.
Dudley, Nichols Academy.	Fifteen trustees, service not limited.	None.	Annual, —\$1,000, usually.	Text-books free, but not supplies.	Free.	Town acts under the academy tuition law.
Duxbury, Partridge Academy.	Seven trustees, life service.	Prescribes text-books, helps plan the course of studies, advises.	Annual.	Free.	Free.	High school of Duxbury since 1868.
Hadley, Hopkins Academy.	Twelve trustees, service not limited.	None.	None.	Pupils pay for their own text-books and supplies.	Free.	Descended from the Hopkins Grammar School, started in 1666; incorporated in 1816; granted half a township of land by State in 1820.
Ipswich, High School, known as the Manning School.	Trustees control the Manning fund and own and care for the building.	Elects the teachers and determines the studies, with concurrence of the trustees; in other respects, it has full control.	Annual, the amount now being a little over \$2,000.	Free.	Free.	Last contract between trustees and committee (Sept. 1, 1894) covers ten years.
Leicester, Leicester Academy.	Sixteen trustees, service not limited; funds and buildings controlled by them.	Chairman and secretary are associated with the resident trustees in educational control.	\$2,000 appropriated for high school, said high school being united with the academy.	Free.	Free.	Incorporated in 1784; granted a township of land by the State in 1733; high school of Leicester connected with it in 1898, by agreement of trustees and school committee.
Marion, Tabor Academy.	Seven trustees; life tenure.	None.	None.	Pupils pay for text-books and supplies.	Free.	-
Middleborough, Pratt Free School.	Board of trustees.	None.	None.	Free.	Free.	Only English branches taught. Next year, by vote of the trustees, the school will become a grammar school. Middleborough has a public town high school.
Monson, Monson Academy.	Fifteen trustees; life tenure.	None. Advisory relations welcomed by trustees.	Appropriates \$27 a year for each Monson pupil in the academy.	Town pays for text-books, pupils pay for supplies.	Free.	Incorporated in 1804; granted half a township of land by the State.

XIII. *Table of Academies serving as High Schools — Concluded.*

High School or Academy.	Control.	Authority of School Committee.	Appropriation by the Town.	Text-books and Supplies for Pupils of the Town.	Tuition for Pupils of the Town.	Remarks.
Newbury, Dummer Academy.	Fifteen trustees, life tenure.	None, except that it is permitted to choose text-books for the town pupils and to visit the school. Advisory relations welcomed.	Appropriates money to pay tuition of town pupils.	Free.	Free.	Opened as a "grammar" school in 1763; incorporated in 1782; granted half a township of land by the State.
Newburyport, High and Putnam Free School.	Putnam Free School has eight trustees, life tenure, in control of building and funds.	Controls both the high school and the Putnam Free, which are consolidated.	Annual, for all the expenses except those paid for by the Putnam trustees.	Free.	Free.	The two schools were consolidated in 1863.
New Salem, New Salem High School.	A committee of three from fifteen trustees.	All are members of the board of trustees, and have full control of the school.	Annual, — usually \$300, and such tuition receipts as are paid to the town.	Free.	Free.	Incorporated in 1795; the town maintains a high school in connection with the academy; few or no academy pupils.
Sherborn, Sawin Academy and Dowse High School.	Five trustees, elected annually by the town, each to serve five years.	None.	Town raises money each year to pay an assistant teacher.	Pupils pay for text-books and supplies.	Free.	Practically a town school, since its endowment is town property and its trustees town appointments, although its government is not vested in the school committee.
Shelburne, Arms Academy.	Seven trustees, life tenure.	None. Advisory relations held.	Annual, for the tuition of town pupils.	Pupils pay for text-books and supplies.	Free.	Incorporated in 1800; town acts under academy tuition law.
West Bridgewater, Howard Seminary and West Bridge-water High School.	Eleven trustees.	None.	None.	Pupils pay for text-books and supplies.	Free.	The high school is a part of Howard Seminary.

Westfield, High School, once the Academy.	Trustees control certain funds.	Appoints teachers whom trustees approve; otherwise, it has full control.	Annual, — not far from \$7,400.	Free.	Academy incorporated in 1793; received half a township of land from the State; agreement of committee and trustees adopted in 1890.
Westford, Westford Academy.	Fifteen trustees, in charge of funds.	A joint committee of the trustees and the school committee appoints the teachers and exercises educational control.	Annual, — \$1,500.	Free.	Town's action based on the academy tuition act.
Winchendon, Murchison School.	Trustees control the funds.	Controls the school educationally.	None.	Free.	The school committee's control is complete, but the trustees pay all the bills.

Comments on Table XIII. — In connection with every school of the table there is a board of trustees. In some cases this board retains full control of the school, both on the educational and on the business side; in other cases it has granted varying degrees of control to the school committee. In every case tuition is without charge to the children of the town. Text-books, however, are not always free, as they should be.

There are other cases of high schools, once private and governed by trustees, but now so completely town schools that they do not belong in the foregoing table, no traces of the old trusteeship surviving. Then there are high schools to which funds have been directly left, so that the public is partly relieved from the burden of supporting them. As a result of this varied evolution, we have several high schools under full public control, but maintained in part from private endowments or funds, like the Stetson high school of Randolph, the Lawrence high school of Falmouth, the Houghton high school of Bolton and the high schools of Yarmouth, Stow, Belcher-town, Sterling and Mattapoisett.

If the trustees of academies that should serve as local high schools and as high schools for the small towns in their vicinity could see their way, as some have already done, to give educational control to the school committees, so as to bring them within that "order and superintendence" of the town authorities which the constitution requires as a condition for raising money by taxation for their support, two or three important things would be accomplished for the welfare both of the academies and of the people. They are as follows: —

1. It would be legal for the towns to raise money for them.
2. Neighboring towns could legally pay for the tuition of their children therein.
3. The State could legally reimburse certain towns for their payment of such tuition.

Probably not all the arrangements indicated in the table are legal, although they are exceedingly convenient and helpful. Probably it is all right to give such plans the benefit of any doubts that exist until some decision is made against them. It is better, however, to be safely within the law; and it is conceived to be generally, though not always, possible for trustees

to retain control of the funds entrusted to their care, to insure the historic continuity of the schools which it is their duty to foster, — in short, to be absolutely loyal to their trust, and yet to delegate enough of educational control to the public school authorities to make the schools a legitimate public care. This union of private and public funds often secures, with no additional burden to the trustees and only slight to the public, largely increased efficiency for the school.

Educational control naturally involves the appointment and dismissal of the teachers, the determination of what they shall teach, the selection of the books from which they shall teach, and the supervision of the methods by which they shall teach. Such control can be granted by the trustees for a longer or shorter time, and be brought to an end in accordance with prescribed conditions. It does not involve abandonment of a trust, unless the conditions thereof forbid such delegation of authority, but only a desirable mode of administering it. Ultimate control under such a plan remains with the trustees. In the very few cases in which the terms of the endowment preclude the delegation of educational control to the town, the possibility of State help merits consideration, if by such help high school tuition can be made free where now practically it is not.

Possible State Aid to a Few Academies that serve as High Schools for Towns in their Vicinity. — There are two or three regions of the State where an academy under private control seems to be the only secondary school within reach of the small towns round about. These towns cannot legally pay for tuition in such an academy; and, if they should pay, it does not seem legal for the State to reimburse them for payments illegally made. Thus a few children, entitled to free high school tuition by State law, are practically estopped from receiving it. The Legislature has regarded academies as being in many respects public schools. Because of this view, it has not unfrequently bestowed upon them grants of land. This policy towards academies is clearly brought out in a report by a committee of the Legislature Feb. 27, 1797; also in a report of the joint standing committee on education, dated March 30, 1859. In view of this policy, which seems to be regarded as constitu-

tional by the Massachusetts supreme court (*Merrick v. Amherst*, 12 Allen, 508), it might be feasible for the State to make arrangements with certain academies to give high school instruction without charge to pupils of neighboring towns in cases where these towns cannot themselves legally make such arrangements. Is it not as legitimate to grant money to an academy to enable it to serve the high school children of surrounding towns as to grant it a township for general educational purposes?

The Approval of High Schools in General. — The policy of approving high schools was adopted several years ago for certain normal school admission purposes. Inasmuch as ability to pass an examination in high school subjects will now admit to the normal school any high school graduate or any person who claims a training equivalent to that of a high school graduate, it is no longer necessary to approve high schools for such purposes. If they meet normal school requirements, that takes the place of the only approval the Board once tried to give.

The Board is required, however, to approve high schools for the payment of tuition in which the State reimburses certain towns.

State Reimbursement of High School Tuition. — The law authorizing the reimbursement of high school tuition to towns whose valuation is less than \$500,000 went into effect April 4, 1895. The following is a synopsis of its workings for the past four years :—

PERIOD COVERED.	Number of Towns.	Number of Tuition Pupils.	High Schools approved.	Average Tuition.	Amount reimbursed.
April and June, 1895, . . .	28	112	29	\$23 42	\$840 41
September, 1895, to June, 1896,	38	143	29	31 05	3,873 05
September, 1896, to June, 1897,	43	219	33	31 72	6,121 72
September, 1897, to June, 1898,	51	255	39	32 61	7,309 18

The following table gives details for the school year ending with June, 1898 : —

XIV. Table showing High School Tuition Reimbursements under Chapter 212, Acts of 1895.

TOWNS.	Number of Pupils.	High Schools attended.	Rate per Year.	Amounts.
Alford, . .	3	Great Barrington, . .	\$31 20	\$93 60
Becket, . .	1	Westfield, . . .	50 00	50 00
Berkley, . .	5	Taunton, . . .	50 00	250 00
Berlin, . .	6	Hudson, . . .	20 00	106 66
Berlin, . .	1	Northborough, . .	24 00	24 00
Berlin, . .	20	Clinton, . . .	24 00	459 00
Boxborough, .	3	Acton, . . .	30 00	90 00
Boxborough, .	2	Concord, . . .	44 00	88 00
Carlisle, . .	2	Concord, . . .	46 00	92 00
Charlemont, .	2	Athol, . . .	24 00	48 00
Charlemont, .	1	North Adams, . .	30 00	20 00
Charlemont, .	1	Greenfield, . . .	30 00	23 25
Charlemont, .	1	Ashfield, . . .	18 00	9 00
Clarksburg, .	5	North Adams, . .	30 00	135 00
Cummington, .	1	Northampton, . .	45 00	45 00
Cummington, .	1	Ashfield, . . .	18 00	18 00
Dana, . . .	7	New Salem, . . .	22 50	148 00
Eastham, . .	5	Orleans, . . .	32 00	132 00
Egremont, . .	17	Great Barrington, .	31 20	487 20
Erving, . . .	12	Orange, . . .	25 00	300 00
Erving, . . .	10	Greenfield, . . .	30 00	264 00
Florida, . .	1	North Adams, . .	30 00	30 00
Gill, . . .	7	Bernardston (Powers Institute).	21 00	140 00
Gill, . . .	7	Montague (Turner's Falls).	22 00	154 00
Goshen, . . .	3	Ashfield, . . .	18 00	51 00

XIV. High School Tuition Reimbursements, etc. — Continued.

TOWNS.	Number of Pupls.	High Schools attended.	Rate per Year.	Amounts.
Greenwich, . .	7	Hardwick, . . .	\$15 00	\$92 50
Hawley, . . .	1	Ashfield, . . .	18 00	18 00
Hawley, . . .	1	Concord, . . .	42 00	42 00
Lakeville, . .	5	Middleborough, . .	40 00	200 00
Lanesborough, .	4	Adams,	15 00	55 00
Leverett, . . .	1	Amherst,	34 50	34 50
Leverett, . . .	6	Montague (Centre), .	22 00	124 00
Leyden, . . .	4	Greenfield,	30 00	111 00
Monterey, . . .	5	Great Barrington, . .	31 20	114 40
Montgomery, .	1	Westfield,	50 00	50 00
Mt. Washington, .	1	Great Barrington, . .	31 20	8 80
New Braintree, .	1	North Brookfield, . .	40 00	40 00
Oakham, . . .	1	Boston,	82 12	82 12
Oakham, . . .	3	Barre,	15 00	45 00
Oakham, . . .	3	Rutland,	16 50	57 50
Otis,	1	West Springfield, . .	36 00	33 00
Paxton, . . .	1	Worcester (English), .	40 00	30 00
Paxton, . . .	1	Worcester (Classical), .	40 00	30 00
Pelham, . . .	2	Amherst,	34 50	69 00
Phillipston, . .	2	Athol,	24 00	32 00
Plainfield, . .	2	Northampton, . . .	45 00	90 00
Plympton, . . .	1	Kingston,	30 00	30 00
Prescott, . . .	1	Athol,	24 00	24 00
Richmond, . . .	5	Pittsfield,	36 00	158 40
Rochester, . . .	1	Fall River,	40 00	40 00
Rochester, . . .	1	Wareham,	30 00	30 00

XIV. High School Tuition Reimbursements, etc. — Concluded.

TOWNS.	Number of Pupils.	High Schools attended.	Rate per Year.	Amounts.
Rowe, . . .	1	North Adams, . . .	\$30 00	\$30 00
Royalston, . . .	3	Athol,	24 00	72 00
Royalston, . . .	2	Winchendon, . . .	28 00	56 00
Russell, . . .	1	Westfield,	50 00	50 00
Shutesbury, . . .	1	New Salem,	22 50	22 50
Southampton, . . .	2	Westfield,	50 00	70 00
Southampton, . . .	7	Easthampton,	25 00	175 00
Southwick, . . .	9	Westfield,	50 00	400 00
Sunderland, . . .	2	Greenfield,	30 00	54 75
Sunderland, . . .	1	Amherst,	34 50	11 50
Sunderland, . . .	1	Montague (Centre), . . .	18 00	6 00
Truro,* . . .	1	Wellfleet,	30 00	30 00
Truro,	3	Wellfleet,	30 00	90 00
Tyngsborough, . . .	13	Lowell,	60 00	660 00
Warwick,* . . .	1	Orange,	25 00	25 00
Warwick, . . .	1	Orange,	25 00	25 00
Washington, . . .	1	Westfield,	50 00	50 00
Wendell, . . .	4	Montague (Centre), . . .	22 00	72 00
Wendell, . . .	1	New Salem,	22 50	22 50
Westhampton, . . .	2	Easthampton,	25 00	50 00
West Tisbury, . . .	2	Tisbury (Vineyard Haven).	54 00	108 00
Whately, . . .	3	Northampton,	45 00	120 00
Whately, . . .	7	Greenfield,	30 00	210 00
51 towns, . . .	255	39 schools,	Av.\$32 61	\$7,309 18

New Statutory Definition of the High School. — Chapter 496, Acts of 1898, section 3, requires every town of five hundred families or householders, and permits any town, to maintain a high school adequately equipped, to be kept by a principal and such assistants as may be needed, of competent ability and good morals. The distinction heretofore recognized by the statutes between two grades of high schools (practically one grade fitting for college and the other not) is abolished. Whether a high school is required or voluntarily kept, the new law makes it the duty of such high school to respect the following requirements: —

1. Instruction shall be given in such subjects designated in section 1 of the chapter as it may be deemed expedient to teach in the high school, and in such additional subjects as may be required (1) for the general purpose of training and culture, and (2) for the special purpose of preparing pupils for admission to State normal schools, technical schools and colleges.

2. There shall be at least one course of study four years long.

3. The school shall keep forty weeks, exclusive of vacations.

4. A town may, if it chooses, meet only a portion of the statutory requirements in its own high school, provided it makes adequate provision for meeting the rest of them in the high school of another town or of any city.

The new law, therefore, gives every properly qualified child in the State a legal right to four years of such instruction, forty weeks a year, as shall give him a good general high school education, if he does not care to go higher, or a good special preparation for any higher institution. It is earnestly desired — the movement to secure it has strong support and now looks promising — that a good general course of four years shall finally be accepted by the colleges as a good preparatory course as well. To concentrate upon the general course that energy which is now divided between it and the traditional college preparatory, the lion's share in the division too frequently going to the few who take the latter, would materially simplify the problems of the small country high school. The general course of this high school, as it is usually outlined, is already acceptable in the main to the public, to the State normal

schools, to the high technical schools and to two or three of the New England colleges; or it is more prudent to say that it would be acceptable if the instruction therein could be made sufficiently sound, exacting and continuous. The following New England colleges were reported recently to the National Educational Association as having no science admission requirements for any course that leads up to the degree of A.B.: Amherst, Bowdoin, Brown, Colby, Dartmouth, Mt. Holyoke, Smith, Tufts, the University of Vermont, Williams and Yale. The following colleges were reported as having such admission requirements: Harvard, Radcliffe and Wellesley. To the latter list should be added Boston University, omitted in the report, and Bowdoin, which has changed since the report was made. Eight of the New England colleges have science admission requirements for admission to the degree of B.S. or Ph.B., while five of them, so far as their admission requirements tell the story, are as oblivious to science instruction in the public schools as if science were unknown there.

So long as the necessity exists for students to pursue chiefly Latin, Greek and mathematics in preparing for college, it would be in the interests of scholarship for the preparatory students, of economy for the small town and of efficiency for the home school, to send these students to an outside high school where such work can be done to better advantage, and to strengthen the general home course by selecting teachers that believe in it and are competent to teach it and having them put their undivided energy into it.

Report of the Committee on College Entrance Requirements.—The committee on college entrance requirements, appointed by the National Educational Association, took strong grounds in favor of the college recognition, in entrance requirements, of any and every reputable high school course that is at least four years long. The following quotations from the committee's report are emphatic and refreshing:—

1. College courses ought to be so adjusted that every pupil at the end of a secondary course recognized as excellent, both in the quality and quantity of its work, may find the doors of every college swinging wide to receive him into an atmosphere of deeper research and higher culture along the lines of his mental aptitudes.

2. Since power to adapt one's self to the sphere for which nature designed him is the end of education, every student should find in the college and university the means by which that power may be secured. If this principle is correct, — and who shall prove its fallacy? — why is not the degree of B.S. or Ph.B. of equal dignity and worth with that of A.B.? Or, in other words, why should not all such degrees be abolished or moulded into one, which shall signify that a man or woman has secured that higher education best suited to his talents and the far-reaching purposes of his life?

3. It is unwise, impracticable and impossible to divide the pupils in our public high schools into two distinct classes, the one preparing for college and the other for life; and if four languages are to be insisted upon for admission to any course, the affiliation of the public high schools with the colleges will come to an end, and such a preparation will be relegated to the private schools, who are willing or can afford to bow down to this golden college calf. Two foreign languages, selected from Latin, Greek, Spanish, German, French, ought to satisfy the demands of every college.

4. The secondary schools are the schools of the people, and the people have demanded, and in still more effectual ways will demand, that their courses must be practical, beneficial, disciplinary. The sciences no longer knock at the doors for admission. They have been admitted, and a larger and still larger place will be provided for them.

5. The sciences as they are beginning to be taught in our best schools add to the wealth of mind as well as to the stock of facts, and the colleges must recognize them as full equivalents for other work which they have hitherto demanded to the exclusion of science.

6. No good high school can afford to give three years to one science, — physics, for instance, — to the exclusion of biology and chemistry. Such an arrangement would be neither wise nor feasible; but, rather than prevent pupils from receiving a college education, it would be eminently proper to allow as a substitute for three years of Greek the work of one year given to each of three sciences, provided the laboratory system of instruction prevailed in these schools.

7. In planning for a uniformity in college entrance requirements there are a few vital facts which cannot be ignored: First, the triple function of the public high school, viz., to equip pupils for the business of life, to give a proper training to those who will teach in the common schools, and to prepare for college. Secondly, a majority of our young people who go to college come to a decision late in their secondary course. Thirdly, every young man or woman who has successfully devoted at least four years to earnest study in a well-

equipped secondary school should be admitted to any college in the country, whether such a pupil has devoted the greater part of his time to Latin, Greek and mathematics, or to Latin, modern languages and mathematics, or to Latin, mathematics and the sciences, or to any other combination of studies which has developed his power and been in harmony with his intellectual aptitudes.

8. The public high school can become a link in the gold-chain of our American system of education only when the colleges begin where the best high schools leave off; otherwise the gap between the common school and the college must be filled by the private schools, patronized by the children of the rich, and the sons and daughters of the great middle class must be deprived of the benefits of a higher education, because, forsooth, they have failed to fulfil some specific requirement of the college they would otherwise enter.

EVENING SCHOOLS.

XV. Table giving, for a Period of Ten Years, 1889 to 1898, the Number of Towns that have maintained Evening Schools; also the Number of Such Schools, with the Attendance and the Expense of supporting Them.

YEAR.	Number of Towns.	Number of Schools.	ATTENDANCE.			Per Cent. of Attend- ance.	Expense
			WHOLE NUMBER ATTENDING.		Average.		
			Males.	Females.			
1889, . .	51	240	17,208	6,424	12,598	53	\$127,942 05
1890, . .	52	201	17,928	6,892	13,972	51	138,732 02
1891, . .	55	266	21,131	7,322	14,526	51	151,279 24
1892, . .	55	255	22,340	6,881	15,287	52	131,557 63
1893, . .	58	244	21,615	6,169	14,881	53	152,269 06
1894, . .	55	285	25,385	7,534	17,420	52	171,544 57
1894-95, . .	54	747	22,277	6,991	15,371	53	176,188 14
1895-96, . .	49	681	20,786	9,764	16,282	53	176,304 02
1896-97, . .	55	739	20,126	9,674	16,472	55	185,862 42
1897-98, . .	52	740	22,514	9,904	16,714	52	198,666 43

Comments on Table XV.—For four years the count of evening schools has been based upon the single class room as the unit. This accounts for the apparent increase in number from 1894 to 1895. According to the popular count there

were last year 204 evening schools, as against 215 the preceding year, — a loss of 11, although the number of schools by the other count has increased by 1. These schools are classified as elementary, 147; high, 7; drawing, 44; and miscellaneous, 6. Of the miscellaneous schools, two are for cooking, one for bookkeeping, one for stenography and typewriting, one is “general” and one is reported under the head of “grammar.” These evening schools are distributed as follows: —

TOWNS AND CITIES.	Population, 1895.	Elementary.	High.	Drawing.	Miscellaneous.
Adams,	7,837	2	—	—	—
Auburn,	1,598	1	—	—	—
Beverly,	11,806	1	—	—	—
Boston,	496,920	12	1	5	—
Brockton,	33,165	1	1	2	—
Brookline,	16,164	2	—	—	—
Cambridge,	81,643	4	1	2	—
Chatham,	1,809	—	—	—	1 ¹
Chelsea,	31,264	1	—	—	—
Chicopee,	16,420	3	—	2	—
Clinton,	11,497	1	—	1	—
Dudley,	3,203	2	—	—	—
Easton,	4,452	1	—	—	—
Everett,	18,573	1	—	1	1 ²
Fall River,	89,203	10	1	1	—
Fitchburg,	26,409	2	—	1	—
Framingham,	9,512	1	—	—	—
Gardner,	9,182	2	—	1	—
Greenfield,	6,229	1	—	—	1 ³
Haverhill,	30,209	2	—	2	—

¹ General.² Stenography and typewriting.³ Bookkeeping.

TOWNS AND CITIES.	Population, 1895.	Elementary.	High.	Drawing.	Miscella- neous.
Holyoke,	40,322	4	—	1	1 ¹
Hyde Park,	11,826	1	—	1	—
Lawrence,	52,164	3	1	1	—
Lowell,	84,367	12	1	1	—
Lynn,	62,354	1	—	1	—
Malden,	29,708	1	—	1	—
Marblehead,	7,671	1	—	—	—
Marlborough,	14,977	1	—	—	—
Medford,	14,474	1	—	—	—
Millbury,	5,222	1	—	—	—
Natick,	8,814	1	—	—	—
New Bedford,	55,251	5	—	1	—
Newburyport,	14,552	2	—	—	—
Newton,	27,590	1	—	1	—
North Adams,	19,135	4	—	1	—
North Attleborough,	6,576	1	—	—	—
Northampton,	16,746	4	—	2	—
Pittsfield,	20,461	3	—	1	—
Quincy,	20,712	2	—	1	—
Salem,	34,473	3	—	1	—
Somerville,	52,200	4	—	1	—
South Hadley,	4,443	1	—	—	—
Southbridge,	8,250	4	—	—	—
Spencer,	7,614	1	—	—	—
Springfield,	51,522	3	—	2	1 ²
Taunton,	27,115	6	—	1	—
Waltham,	20,876	1	—	1	—

¹ Grammar.² Cooking.

TOWNS AND CITIES.	Population, 1895.	Elementary.	High.	Drawing.	Miscellaneous.
Webster,	7,799	1	—	—	—
West Boylston, . .	2,968	2	—	—	—
Westfield,	10,663	1	—	—	—
Woburn,	14,178	1	—	—	—
Worcester,	98,767	14	1	7	1 ¹
	1,760,885	147	7	44	6

¹ Cooking.

The attendance has increased by 2,678. The percentage of attendance has apparently declined, it being 52 this year, as against 55 last year. Unfortunately, last year's percentage was swollen by an incorrect return from Boston, which practically gave the evening schools of that city a percentage of 100,—a mistake that was not noticed until too late for correction. The percentage of attendance, though low, has been quite constant for many years. It should be noted, further, that the percentage for evening schools is based, not on the ratio of the average attendance to the average membership, as in the day schools, but on the ratio of the average attendance to the total membership. By the method of computation adopted in the day schools, the percentage would be considerably higher; but, on the best showing, there is, in the case of large numbers, an irregularity of attendance, some of it doubtless unavoidable, that seriously impairs for them the usefulness of the evening schools. On the other hand, there is an ambition, a persistence, a steadiness, a self-denying spirit, on the part of many, that yields most commendable results and goes far to offset any seeming waste of time, money and energy upon those who do not or cannot properly respond to the efforts of the public in their behalf.

The cost of the evening schools has increased by \$12,804.01. This is \$6.11 per pupil of the total membership, as against \$6.24 last year. A large part of this increase (\$9,777.73) was

in Boston. This city reported 5,910 pupils for the year, as against 4,111 the preceding year, — a gain of 1,799.

The number of teachers was 1,262, or 90 less than reported last year. Six towns of last year's list (Andover, Maynard, Northbridge, Warren, Williamstown, Winthrop) have discontinued their evening schools, dropping 27 teachers. Three towns (Chatham, Greenfield, Marblehead), with 14 teachers, have been added to the list. There has been a reduction of teaching force in most of the towns and cities, the principal reductions being these: Boston, 13; Cambridge, 17; Chicopee, 4; Fitchburg, 24; Lowell, 26; Northampton, 4; and Worcester, 5. The principal cases of increase are these: Chelsea, 3; Holyoke, 5; Lawrence, 6; Malden, 3; New Bedford, 9; Pittsfield, 3.

The average number of evenings kept by the evening schools was 52.4, as against 51.1 the preceding year.

Compliance with the Law requiring Evening Schools. — The law requires (1) that every town and city of ten thousand inhabitants or more shall maintain evening schools for the instruction of persons over fourteen years of age in specified subjects (section 5, chapter 496, Acts of 1898), and (2) that every city of fifty thousand inhabitants or more shall maintain an evening high school if fifty or more residents over fourteen years of age and competent to pursue high school subjects petition therefor. Industrial drawing, both free hand and mechanical, is among the specified subjects of the first class of schools; it may be taught at the option of the school committee in the second class. The spirit of the law undoubtedly permits it to be taught also in separate and special schools for the purpose.

The number of cities required to maintain evening elementary schools is 32. All of them complied with the law last year, except Gloucester. The number of towns required to maintain such schools is 7, of which Brookline, Clinton, Hyde Park and Westfield complied with the law last year, and Melrose, Peabody and Weymouth did not.

The number of cities required to maintain evening high schools if petitioned to do so is 10. Of these cities, Boston, Cambridge, Fall River, Lawrence, Lowell and Worcester maintain such schools, and Lynn, New Bedford, Somerville and

Springfield do not. The presumption in the case of these latter cities is that they have not received the requisite petition from "fifty or more residents, fourteen years of age or over, who desire, and, in the opinion of the school committee, are competent, to pursue high school studies."

LENGTH OF TIME THE SCHOOLS HAVE BEEN KEPT.

XVI. *Table showing the Length of Time the Schools have been kept during Each Year from 1889 to 1898, — a Period of Ten Years.*

YEARS.	Average Number of Months and Days.	YEARS.	Average Number of Months and Days.
1889,	9-1	1894,	9-6
1890,	8-15	1894-95, . . .	9-6
1891,	9	1895-96, . . .	9-6
1892,	9-2	1896-97, . . .	9-6
1893,	9-3	1897-98, . . .	9-6

Only one town, Sandisfield, reports a school kept less than six months. The schools of this town were kept on an average seven months and six days. The committee organized a school to be kept six months to accommodate a certain neighborhood, but a snow blockade cut the time short by a week.

Minimum Length of Schooling extended from Six to Eight Months.—The Legislature of 1898 increased the minimum length of schooling from six months to eight months. The average length for the State has for several years been nine months and six days, the month being twenty school days. At the time of this legislation there were 304 towns, with a population of 2,465,996, whose schools were already kept from eight to ten months; leaving only 49 towns, with a population of 34,187, whose schools were kept less than eight months.

The following table has been prepared to show what towns are required to increase their schooling, and to suggest the magnitude of the new burdens the requirement is likely to impose upon them:—

XVII. Towns that need to increase their Schooling, with Sundry Facts about Them.

TOWNS.	DOLLARS ON A THOUSAND.				FORMS OF STATE AID.										
	Valuation, 1897.	Tax Rate, 1896.			Expended on Schools, 1896.	Expended on Schools, 1897.*	Average Number of Pupils.	Average Number per School.							
		Tax Rate, 1896.	Tax Rate, 1897.	Sum raised for each Child of Average Membership.†											
Length of School in Months and Days.	Required Increase in Days.					Number of Schools.			School Fund.	High School Tuition.	Teachers' Salaries.	District Superintendence.			
Barnstable:—															
None,	-	-	-	-	-	-	-	-	-	-	-	-			
Berkshire:—															
Becket,	7-6	14	\$416,218	\$15 00	\$16 00	\$3 37	\$3 84	\$11 28	8	142	18	\$445 02	Yes	No	Yes
Florida,	7-16	4	152,012	22 00	22 00	6 85	6 57	13 89	4	72	18	531 23	Yes	Yes	Yes
Lanesborough,	7-13	7	457,489	15 00	14 50	3 81	3 93	15 65	6	115	19	445 02	Yes	No	No
Monterey,	6-18	22	229,155	15 00	18 00	3 66	3 26	9 48	6	79	13	445 03	Yes	Yes	No
Mt. Washington,	7	20	81,542	13 50	14 00	91	1 41	5 48	2	21	11	300 00	Yes	Yes	No
Otis,	7	20	202,332	14 00	12 00	3 73	3 95	12 31	5	65	13	445 03	Yes	Yes	No
Pertu,	6-10	30	115,485	16 50	15 55	4 53	4 66	11 45	4	47	12	481 28	Yes	Yes	No
Sandisfield,	7-6	14	338,960	14 00	14 60	3 16	3 56	10 99	10	110	11	445 03	Yes	Yes	No
Savoy,	7-15	5	156,071	20 00	22 00	4 53	5 01	9 00	7	87	12	495 03	Yes	Yes	No
Tyringham,	7-10	10	213,437	12 00	13 00	2 93	3 92	18 23	5	46	9	445 03	Yes	Yes	No
Washington,	7-4	16	215,456	12 60	14 00	2 66	4 93	17 16	6	62	10	420 85	Yes	Yes	Yes
Windsor,	6-5	35	182,226	16 80	20 80	4 31	4 69	11 25	7	76	11	445 03	Yes	Yes	No
Bristol:—															
Rehoboth,	7-12	8	706,340	15 20	15 30	5 44	4 90	12 65	14	274	20	381 23	No	No	No
Dukes:—															
Chilmark,	6-6	34	217,664	9 25	8 30	1 69	1 73	15 99	3	23	8	300 00	Yes	Yes	Yes

* As per graduated tables, second series, Appendix.

† As per graduated tables, fourth series, Appendix.

Hampshire:—		7-10	10	277,774	17 10	17 10	3 41	3 51	12 37	6	79	13	420 86	Yes	Yes	No
Chesterfield, . . .		7-10	13	283,254	18 30	19 30	5 24	2 48	6 64	6	106	18	531 28	Yes	Yes	No
Cunnington, . . .		7-12	8	496,877	19 00	21 00	5 10	5 44	9 99	9	271	30	381 28	No	Yes	No
Huntington, . . .		7-3	17	197,491	11 00	13 00	3 92	4 20	8 75	5	95	19	481 28	Yes	Yes	Yes
Middlefield, . . .		7-10	10	175,985	16 00	17 50	5 63	2 95	6 94	4	75	19	481 28	Yes	Yes	No
Pelham, . . .		6-16	24	157,988	15 00	15 00	3 39	3 41	6 27	6	86	14	445 03	Yes	Yes	No
Plainfield, . . .		7-13	7	161,502	13 50	14 10	4 72	4 95	13 79	5	58	12	481 28	Yes	Yes	No
Prescott, . . .																
Middlesex:—																
Ashby, . . .		7-18	2	469,749	15 00	15 00	4 37	3 83	13 95	6	129	24	481 29	No	Yes	Yes
Dunstable, . . .		7	20	286,227	12 50	13 50	4 66	4 17	22 56	3	53	18	541 71	Yes	Yes	
Nantucket, Norfolk, Plymouth and Suffolk:—																
None, . . .		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worcester:—																
Ashburnham, . . .		7-15	5	1,042,090	16 00	16 00	4 52	4 70	13 32	13	368	28	281 29	No	No	No
Charlton, . . .		7-10	10	903,650	13 20	12 40	4 29	4 37	13 87	14	285	20	381 29	No	No	No
Oakham, . . .		7-10	10	312,723	15 20	11 20	4 33	4 48	15 10	5	93	19	481 28	Yes	Yes	No
Paxton, . . .		7-16	4	289,529	13 40	14 00	2 71	2 78	13 24	2	61	31	420 85	Yes	Yes	No
Phillipston, . . .		7-1	19	288,648	17 20	18 30	4 07	4 09	16 92	4	65	16	445 03	Yes	Yes	Yes
Princeton, . . .		6-16	24	849,423	11 00	11 00	3 41	3 53	26 32	6	114	19	381 28	No	No	Yes
Royalston, . . .		6-13	27	474,935	11 00	12 00	2 69	2 76	11 64	7	113	16	445 03	No	Yes	Yes
Rutland, . . .		7-17	3	565,134	16 50	15 00	4 09	4 15	12 11	6	194	32	345 03	No	No	No
Sterling, . . .		7-18	2	867,020	13 80	13 60	4 63	4 32	20 06	10	187	19	381 28	No	No	Yes
Westminster, . . .		7-7	13	650,639	17 20	14 50	5 28	4 90	14 92	10	214	21	381 28	No	No	Yes

* As per graduated tables, second series, Appendix.

† As per graduated tables, fourth series, Appendix.

The number of towns to increase their schooling is 47. Of these 47 towns, 5 will need to increase their schooling less than a week, 8 between one and two weeks, 16 between two and three weeks, 4 between three and four weeks, 5 between four and five weeks, 2 between five and six weeks, 5 between six and seven weeks, 1 between seven and eight weeks, and 1 eight weeks.

Hardships of keeping up with the State Requirements. — The State has been steadily pressing for the better schooling of the children. Better buildings, better teaching, longer schooling, high school instruction for all, — these things are more and more strenuously insisted upon for the good of the children and the State, and without reference to the ability or inability of the towns to provide them. The State has taken the ground that the children must be properly schooled, whether towns have the means to school them or not. The interests of the children, and through them of the State, must be protected at all hazards. As a result, school legislation has imposed upon some of the towns burdens that, however heroically they are borne, are unquestionably excessive. The foregoing table brings out impressively the burdens of some of these towns. There are other towns giving eight months' schooling or more whose burdens are fully as great as any suggested in the table. Nay, the percentages of the total valuation expended on the schools, as given in the table, do not bring out the full measure of these burdens, since, as pointed out elsewhere in this report (see Table XXII. and comments thereon), the method of determining these percentages, though sound enough fifty years ago, fails to cover all the school expenditures of to-day. If the blessings of good schooling or the evils of bad were wholly local, and therefore of less vital interest to the State, it might well be questioned whether the State has a moral right to press the towns so hard in this matter.

But the youth of these heavily loaded towns are forever leaving them, — the well-trained and noble-spirited to swell the enterprise and wealth of the rest of the State, the badly-trained and low-purposed to add to its cares and clog its progress. These depleted and weakened towns help the rest of the State far more than they hurt it; but, whether they help

or hurt, the State's interest in their schools is real, great and abiding, — so real, so great, so abiding, that the people as a whole have invariably insisted not only on the right but the duty of the State to require good schooling in these towns, as in all other towns of the State. This insistence is expressed in its constitution, in its legislative history from the times of the Pilgrims and Puritans, and in the decisions of its highest courts, as well as in the spoken and written words of its wisest and most eminent citizens, but nowhere probably with greater force than in the struggle of the people as a whole to improve their schools. Indeed, it may be safely said that school legislation in Massachusetts, however exacting it may seem to be for some of the towns, distinctly lags behind public sentiment; it follows on after, as it were, to clinch policies well advanced before it takes them up and makes them binding. The minimum length of schooling, for instance, heretofore required of towns under 4,000 inhabitants, has been six months. The law of 1898 raises it to eight months. It did not do so, however, until 202 of the 251 towns under a population of 4,000 had voluntarily increased their schooling to eight, nine, and in many cases ten, months.

It follows that the State, in making requirements beyond the ability of towns to meet them without excessive effort, is under some measure of obligation to ease their burdens, at least at the points of greatest pressure. This obligation has already been cheerfully recognized in various ways, — in the State reimbursement, in certain cases, of high school tuition and of additions to teachers' salaries, in the aid it gives to district superintendence, and in its distribution of the income of the school fund. These forms of aid are adapted to old conditions, but not to such new hardships as may have been created by new legislation. If such hardships appear, they merit considerate attention from the Legislature.

How can the State best reduce the Inequalities of School Burdens? — The policy of the State thus far has been to legislate for such special cases of hardship and need as have impressed it most. Claims to their shares in the income of the school fund have been generously waived by 99 towns and cities in favor of 254 towns that, in the aggregate, have seemed to

stand in more pressing need of such aid. This income — so much of it as has been set apart for the towns — is distributed with due reference to valuation, tax rate and the proportion of the amount raised by taxation which is expended on the public schools. For many years large numbers have thought that a State tax of a half mill or a mill, the proceeds to be distributed among the towns and cities on some basis of school attendance, would be an excellent measure for the welfare of the schools. Two years ago such a measure passed both branches of the Legislature, but failed to receive the approval of the Governor. It was urged against it that towns might receive large sums from it without an additional dollar going to their schools; that well-to-do communities under it would be contributing to the payment of the bills of other well-to-do communities, — contributions the former would chafe to make and the latter to receive; that, in short, it was a measure to equalize general municipal burdens rather than special school burdens, and so was not what it purported to be, — a genuine educational measure. It was replied, on the other hand, — at least, by those interested in equalizing the school burdens rather than the general, — that the beneficiaries of the measure were in general anxious to improve their schools; that, as a rule they taxed themselves as heavily as they ought in efforts to do so, — far more heavily, indeed, than the State as a whole; and that, if they received aid from a State tax intended to help their schools, they could be trusted to use that aid for the welfare of their schools. The help that well-to-do communities might give to other well-to-do communities was likely to be an incident, it was claimed, of any general legislation; it certainly has its parallel in every form of general taxation under which money raised by a whole is distributed in expenditure among its parts; and so, however preposterous such needless help might be made to look when isolated and viewed by itself, it should not be used as an argument against a policy that, viewed in a large way, bade fair to prove a beneficent one both for the whole that should raise the money and the parts that should receive the benefits thereof. Without giving at length the arguments for and against the measure, it is enough here to say that there seemed to be an irreconcilable differ-

ence of opinion as to whether the money raised under the measure would go to the schools or not. "The bill contains no guaranty to that effect," said one side. "No guaranty to that effect is necessary," said the other.

Inasmuch, however, as all parties have united in increasing the State school requirements, are sympathetic witnesses of the burdens these requirements have imposed upon many towns, and are practically agreed that the State should relieve such towns from a part, at least, of the load they must carry if they are to have good schools, though not agreed as to the best way of doing so, it is worth inquiring whether common ground cannot be found for a State policy that shall insure good schools where it gives aid. To determine whether a town needs such aid, several factors merit attention, such as the following:—

1. The valuation of the town,—what it is, how near it comes to the full value of its property, whether it is an increasing or a diminishing valuation, and whether, other needs and obligations of the town being duly weighed, it seems ample enough to support efficient schools.

2. The tax rate for general expenditures,—the average, preferably, for a series of years.

3. The proportion of the money raised by taxation that goes to the public schools,—the average, preferably, for a series of years, pains being taken to distinguish between current expenditures that must be provided for regularly and extraordinary expenditures that come irregularly.

4. The additional amounts that should be expended to bring the schools up to acceptable standards in matters of supervision, high school instruction, salaries of teachers, lengthened schooling and so forth.

5. The nature and extent of the aid to be given by the State,—whether such aid should be granted in a gross sum to be expended for the schools by the towns at their pleasure, or in specific allotments for designated purposes; whether it should be bestowed without conditions, or coupled with them; and, if the latter, with what conditions.

6. The aggregate amount the State would need to raise for aid to all the towns that need it.

7. The relation of the income of the school fund to such aid.

8. How the State may take measures to assure itself that such aid is properly used.

9. And such other matters as would necessarily come up in such an inquiry.

The problem is a complicated one. A similar one, with fewer factors and of less difficult solution, was successfully handled in framing the law for distributing the income of the school fund. If the Legislature should direct an inquiry to be made by competent persons into the nature of this larger problem with special reference to suggesting legislation for its solution, it is by no means improbable that a measure can be devised of greater real help to the schools than the several helpful but partial measures now in existence, involving, doubtless, a greater expenditure by the State than at present, but imposing a less serious tax upon the wealthier places of the State than some of the propositions to which they have taken exception. That is to say, if the amount of money actually needed to relieve the pinching of the school shoe and secure a better fit, if not a better article, could be fairly got at, it would probably be less than the sum raised by some general measure whose provisions are not based on special conditions of need. Or, if the desired sum should prove to be as large as the sum called for by a half mill or a mill State tax, — a most unlikely thing to happen, — it would still be more wisely apportioned for the welfare of the schools. It should not be forgotten that Massachusetts stands almost alone among the States of the Union in putting, with very modest exceptions, the full burden of the schools upon the towns and cities themselves. For a full discussion of the subject of school maintenance and the State's relation thereto, see the report of the Committee of Twelve on rural schools, appointed by the National Educational Association, extracts from which are given in the sixty-first report, pages 464-485.

AMOUNT EXPENDED FOR THE MAINTENANCE OF PUBLIC SCHOOLS.
 XVIII. Table showing the Appropriations and Expenditures for the Ten Years from 1889 to 1898.

	Amount raised by Taxes and expended for Schools, Wages of Teachers, Transportation, Fuel, Care of Fires and Schoolrooms, for 1897-98.	Amount received for the Schools from All Sources, exclusive of Appropriations for Buildings and Repairs.	For Each Child in the State between 5 and 15 Years of Age.	For Each Child in the Average Membership of the Public Schools.	Whole Amount expended for All School Purposes.	For Each Child in the State between 5 and 15 Years of Age.	For Each Child in the Average Membership of the Public Schools.	Ratio of Valuation appropriated to Public Schools.
1888-89, . . .	\$5,366,605 29	\$6,203,390 55	\$16 87	-	\$7,510,718 85	\$20 42	-	.00376
1889-90, . . .	5,524,882 65	6,415,444 51	17 33	-	8,286,062 39	22 38	-	.00399
1890-91, . . .	5,707,514 37	6,652,972 67	17 67	-	8,554,545 51	22 72	-	.00397
1891-92, . . .	5,578,950 29	6,668,690 93	17 41	-	9,315,556 57	24 32	-	.00414
1892-93, . . .	6,282,141 20	7,388,605 29	18 94	-	9,663,907 49	24 77	-	.00414
1893-94, . . .	6,652,305 59	7,800,254 31	19 48	-	9,968,227 28	24 90	-	.00410
1894-95, . . .	6,949,942 96	8,160,452 37	19 98	\$23 88	10,661,356 22	26 07	\$31 20	.00431
1895-96, . . .	7,360,413 38	8,639,532 20	20 70	24 73	11,829,190 61	28 34	33 86	.00465
1896-97, . . .	7,736,815 48	9,132,291 97	21 17	25 10	12,390,637 92	28 72	34 05	.00472
1897-98, . . .	8,292,320 12	9,839,579 33	22 29	25 97	13,653,649 63	30 93	36 04	.00505

Important Facts not brought out in the Foregoing Table. — Of the three expenditure columns, the first contains amounts belonging to classes fixed by law. They must be sworn to by school committees in their certificate of returns to the State. They are a part of the basis for the distribution of the income of the school fund. They exclude classes of expenditure that were either unknown or of slight account in the infancy of the law. These excluded expenditures are for free text-books and supplies, supervision and sundries; and their aggregate for the past year was no less than \$1,261,487.52. These excluded amounts ought to appear in the sworn certificate, but they cannot be placed there until the law requires it. The Legislature recently directed that expenditures for the transportation of school children should be so included, but went no further. These excluded amounts do not appear in the second series of graduated tables in the appendix; consequently that table fails to tell the full story of the school burdens borne by the towns and cities of the Commonwealth.

The second expenditure column contains the amounts received from all sources, public taxation and private funds or contributions, for school purposes, excluding buildings and repairs; and the third expenditure column contains the full amounts for all school purposes, buildings and repairs included, and from all sources, public and private. It should be noted that in each of these two columns are considerable sums that do not come from public taxation at all, the amount being \$285,771.49 for 1897-98. This sum, while it properly increases the sum expended on each child, ought not to be counted as it has been heretofore, with the amount raised by taxation to swell the percentage of valuation appropriated to the public schools. Indeed, the column of valuation percentages is subject to jumps and fluctuations for another reason. It includes large sums of money raised on bonds or notes and expended in erecting school buildings, — sums, therefore, not included in the amounts raised by taxation for the schools during the year when such sums were expended. The final payments of these bonds and notes are distributed through a series of years; often they are provided for by sinking funds to which annual contributions are made. Inasmuch as payments in this gradual

way for school purposes are so interwoven with, covered up by, and lost in the general financial operations of towns and cities that it is hopeless to pick them out and account for them each year, they are not called for in the school returns, and so are never reported. It is legitimate, therefore, since it is the only feasible way, to capture these sums at the time they are actually expended for buildings, and to treat them as if they were immediately raised by taxation during the year of their expenditure, although in fact they were not. Such sums get into the annual expenditures in large blocks during years of exceptional activity. The ratio of the State's valuation alleged by the table to have been appropriated to the public schools in 1897-98 is .00505, or, what is the same thing, \$5.05 on every thousand dollars of the State's valuation. This ratio is so large as to merit explanation. It covers, in reality, (1) everything actually raised by immediate taxation for the schools, which is all right; (2) the heaviest expenditure for school buildings new and old the State has ever known, the money for the new buildings and for some of the alterations of the old having been raised on notes or bonds whose payments are to be distributed over a series of years; and (3) certain voluntary contributions for the schools that should be omitted in determining the tax demands of the schools on the property of the State. Exclude the last two classes of items, and the figures drop from \$5.05 to \$3.53 at once.

Total Amount raised exclusively by Taxation and expended on the Public Schools. — Attention is called to the table that follows, presented for the first time, and based exclusively on amounts raised by taxation and expended (1) for school expenses, exclusive of repairs, alterations and construction of school buildings, (2) for repairs, alterations and construction of school buildings, and (3) for school expenses, inclusive of repairs, alterations and construction of school buildings: —

XIX. Table showing the Amounts raised by Taxation and expended on the Schools for Ten Years.

YEARS.	TOTAL AMOUNTS RAISED EXCLUSIVELY BY TAXATION FOR		
	School Expenses, exclusive of Buildings.	Repairs, Alterations and Construction of Buildings.	School Expenses, inclusive of Buildings.
1888-89, . . .	\$6,043,276 53	\$1,307,328 30	\$7,350,604 83
1889-90, . . .	6,259,102 66	1,870,617 88	8,129,720 54
1890-91, . . .	6,490,266 09	1,901,572 90	8,391,838 99
1891-92, . . .	6,412,072 64	2,646,865 62	9,058,938 26
1892-93, . . .	7,193,134 32	2,275,302 20	9,468,436 52
1893-94, . . .	7,610,671 84	2,167,972 97	9,778,644 81
1894-95, . . .	7,968,463 46	2,500,903 85	10,469,367 31
1895-96, . . .	8,447,204 76	3,189,658 41	11,636,863 17
1896-97, . . .	8,937,403 31	3,258,345 95	12,195,749 26
1897-98, . . .	9,553,807 64	3,814,070 30	13,367,877 94

The amount raised for all school purposes, exclusive of buildings, for 1897-98, was \$9,553,807.64. This shows an increase of \$616,404.33 over the preceding year, as against an average annual increase of \$351,053.11 for the past ten years, the total increase for ten years being \$3,510,531.11. Add now the amount *raised by taxation* and expended for new buildings and for the alteration and repair of old buildings, — the largest yet reported in the history of our schools, — and the grand total rises to \$13,367,877.94, which indicates an increase for the year of \$1,172,128.68, as against an increase of \$558,886.09 last year and an average annual increase of \$601,727.31 for the past ten years, the total increase for ten years being \$6,017,273.11. The year has been one of exceptional activity in erecting new buildings and putting old ones into better condition.

Expenditures for Children in the State between Five and Fifteen. — One condition of a town's receiving its share in the income of the school fund is that it shall raise by taxation for "the wages and board of teachers, transportation of school children, fuel for the schools, and care of fires and schoolrooms" a sum not less than three dollars for each person between the ages of five and fifteen years belonging to such town. For

this reason the first series of graduated tables was planned (see Appendix). The amounts per child there given are based on expenditures for the foregoing purposes, as such expenditures are given in the sworn returns of school committees to the State, *plus* certain sums in the way of surplus revenue which towns have appropriated to the public schools, as explained in the remarks which accompany the graduated table referred to. The following table gives for a period of ten years the average amounts per child between five and fifteen, for the State, as determined from this graduated table; also the average amounts as computed from the sums raised exclusively by taxation for all school purposes, both exclusive and inclusive of repairs, alterations and construction of school buildings, and raised, therefore, for many purposes not recognized at all in the graduated tables. Some of our school expenditures, like those for supervision by superintendents of schools and free text-books, were unknown when the graduated tables were first made out.

XX. *Table showing the Cost of the Public Schools for Each Child in the State between Five and Fifteen Years of Age for Ten Years.*

YEARS.	Amount for Each Child as per Graduated Tables, First Series.	AMOUNT RAISED BY TAXATION AND EXPENDED FOR EACH CHILD FOR ALL SCHOOL PURPOSES—	
		Exclusive of Buildings.	Inclusive of Buildings.
1888-89,	\$14 85	\$16 43	\$19 98
1889-90,	14 92	16 91	21 96
1890-91,	15 40	17 23	22 28
1891-92,	15 05	16 74	23 65
1892-93,	16 39	18 44	24 27
1893-94,	16 88	19 00	24 42
1894-95,	17 23	19 48	25 60
1895-96,	17 87	20 24	27 88
1896-97,	18 16	20 71	28 27
1897-98,	19 02	21 64	30 28

Expenditures for Children in the Average Membership of the Public Schools.—As a matter of fact, however, there are many thousand children between five and fifteen who are in private schools or who have not begun to attend school at all, and whose schooling, therefore, costs the public nothing.

There are many thousands more outside of these age limits of five and fifteen that attend the public schools, and so swell their cost. Then there are the expenditures that do not get into the graduated tables because of the operation of law. What the public would like to know is the real cost of the schools for those that attend them. The following table is intended to show this cost for a series of ten years. The first column, based as it is on the graduated tables, gives the cost in a partial way, — the cost as determined from the basis of the sworn certificates and the surplus revenue, as explained in the preceding paragraph. The remaining columns give the full taxation cost.

XXI. Table showing the Cost of the Public Schools for Each Child of the Average Membership for Ten Years.

YEARS.	Amount for Each Child as per Graduated Tables, Fourth Series.	AMOUNT RAISED BY TAXATION AND EXPENDED ON EACH CHILD FOR ALL SCHOOL PURPOSES —	
		Exclusive of Buildings.	Inclusive of Buildings.
1888-89,	\$18 23	\$20 17	\$24 53
1889-90,	18 49	20 62	26 78
1890-91,	18 83	21 07	27 25
1891-92,	18 41	20 47	28 92
1892-93,	19 92	22 41	29 50
1893-94,	20 57	23 17	29 77
1894-95,	20 62	23 32	30 64
1895-96,	21 34	24 18	33 31
1896-97,	21 53	24 56	33 51
1897-98,	22 16	25 22	35 29

Relations of the School Tax to the General Tax. — It appears from the two foregoing tables that, in whatever way the cost of educating a child is computed, this cost shows an upward trend. Does this upward movement involve an increasing tax rate for the State, or an expenditure for schools of an increasing proportion of what is raised; or is it something that the increasing wealth of the State permits without affecting either the tax rate in general or the proportion of the general tax set aside for schools? The following table has been prepared to answer, at least in part, such questions: —

XXII. Table showing the Relations of the School Tax to the Municipal Tax for Ten Years.

YEARS.	Total Valuation of the State.	Total Municipal Tax for all Purposes.	DOLLARS ON A THOUSAND.				RATIO TO ENTIRE MUNICIPAL TAX OF —		
			Municipal Tax.	School Tax as per Graduated Tables.*	ENTIRE SCHOOL TAX.		School Tax as per Graduated Tables.*	ENTIRE SCHOOL TAX.	
					Buildings Excluded.	Buildings Included.		Buildings Excluded.	Buildings Included.
1888-89,	•	\$1,992,804,101	\$14 74	\$2 74	\$3 03	\$3 68	.185	.205	.250
1889-90,	•	2,072,170,863	14 58	2 71	3 02	3 92	.185	.207	.269
1890-91,	•	2,154,134,626	14 62	2 69	3 01	3 89	.184	.206	.266
1891-92,	•	2,245,042,273	14 36	2 56	2 85	4 03	.178	.198	.280
1892-93,	•	2,333,025,090	14 77	2 74	3 08	4 05	.185	.208	.274
1893-94,	•	2,428,339,029	14 98	2 78	3 13	4 02	.185	.209	.268
1894-95,	•	2,471,521,505	14 93	2 85	3 22	4 23	.190	.215	.283
1895-96,	•	2,542,348,993	14 98	2 93	3 32	4 57	.195	.221	.305
1896 97,	•	2,622,520,278	15 23	2 98	3 40	4 65	.196	.223	.305
1897-98,	•	2,702,328,054	15 39	3 10	3 53	4 94	.201	.229	.321

* Second series, page cxlii, Appendix.

An Increasing Percentage of the State's Valuation expended on the Public Schools. — The table shows apparently that the schools are receiving a slowly increasing percentage of the State's valuation. An absolute annual increase in expenditures for schools is to be expected, because school children are becoming more numerous and public sentiment as to their schooling is getting to be more exacting. If the increase in valuation keeps pace with these increasing school demands, the situation is entirely normal. If, however, a steadily increasing proportion of what the people set apart for municipal purposes is going into schools, this means a steadily reducing proportion for streets, lighting, water, police, aid to the poor, and so on. If certain municipal expenses are reduced in order to put the schools into better condition, or if the people in making sacrifices choose to sacrifice elsewhere rather than in their schools, this would be a creditable showing, and would go to justify the trend to which attention is here called.

Is the Upward Trend as great as it seems? — Before attaching too much consequence to this upward trend, however, it is worth while to inquire whether it is really so great as the figures seem to say. As a matter of fact, the trend, while it doubtless really exists, has been much exaggerated because of a certain incompleteness of statistics. Considerable expenditures of money for schools, heretofore omitted, are now returned. Had these sums been included during all of the last ten years, instead of during the last three only, the contrast between the beginning and the ending of the period would have been less striking. For example, — it is the chief if not the only example known to the secretary, — with the growing magnitude and complexity of the school system certain miscellaneous expenditures have been increasing, for which, until recently, no proper classification was provided in the blanks sent out by the State for the annual school returns. A part of these expenditures found their way into the class of “text-books, supplies, etc.,” because there seemed to be no other place for them, and so helped to swell the apparent cost of free text-books per pupil far beyond the actual fact. A still larger part failed altogether to get into the returns. Three years ago a proper class for these miscellaneous expenditures was provided for the first time in the

State blank. School committees were directed to report under the head of "sundries" such expenditures as could not be classified under other heads. The immediate result was a falling off of \$98,126.19 in the expenditures for text-books and supplies, while \$247,464.40 turned up as sundries. The next year the sundries rose to \$296,350.78 and last year to \$335,449.77. The expenditures for text-books and supplies have shown a natural increase, but have not yet reached the swollen sum of four years ago. For the first seven years of the ten-year period in question it is certain there were omitted from the school expenditures sundries whose aggregate nobody knows, but which is as likely to exceed \$1,000,000 as to fall short of it. We have, therefore, serious omissions from the cost of the schools during the first part of this period, with extraordinary additions to their cost in the way of buildings and repairs during the last part, the combined effect of which has been to exaggerate the apparent increase during the period. Nor should it be overlooked, as explained on page 134, that the school tax for all purposes, including buildings, is a tax most of which, indeed, is imposed during the year for which it is reported, but a part of which—that for new buildings, for instance—is really distributed over a series of years, so that it does not really belong to the year to which it is assigned. The relation of the total amount raised exclusively by taxation for all school purposes except buildings to the total amount raised for all municipal purposes is the safest and best for determining whether the school tax is gaining on the general tax or not. In 1888–89 this school tax was 20.5 per cent., or, in a round number, 21 per cent. of the whole tax; in 1897–98 it was 22.9 per cent., or, in a round number, 23 per cent. of the whole tax,—an increase so slight as to occasion no solicitude, especially in view of the fact that the increase is undoubtedly exaggerated a little, for reasons already given. The increase, if there is value to show for it, is more likely to be worthy of praise than blame.

The total tax for all municipal purposes has risen from \$14.74 in 1888–89 to \$15.39 in 1897–98,—an increase of 65 cents. The total tax for schools, buildings excluded, has increased during the same time from \$3.03 to \$3.53, or 50 cents

in all. The total tax for schools, buildings included, has risen from \$3.68 in ten years to \$4.94, or \$1.26 in all; but, it needs to be repeated, much of this increase of \$1.26 does not belong to the years to which it has been assigned. To show the fluctuations in that part of the school expenditures occasioned by the repair and construction of school buildings, it may be said that building expenditures increased the school expenses in 1888-89 by 65 cents on a thousand dollars of valuation; in 1889-90, by 90 cents; in 1890-91, by 80 cents; in 1891-92, by \$1.18; in 1892-93, by 97 cents; in 1893-94, by 89 cents; in 1894-95, by \$1.01; in 1895-96, by \$1.25; in 1896-97, by \$1.25; and in 1897-98, by \$1.41. The last three years, as clearly shown by these figures, have been years of extraordinary activity in building schoolhouses. This activity has been impressed on the secretary with especial emphasis through numerous invitations to assist in dedicating them.

TEACHERS AND TEACHERS' WAGES.

XXIII. Table showing the Number of Teachers employed, Male and Female, and Total, for Ten Years; their Wages per Month, with the Increase and Decrease of the Same; also the Number of Teachers who have attended Normal Schools, and the Number of Normal Graduates employed.

	TEACHERS.			WAGES PER MONTH.				NORMAL TEACHERS.		
	Male.	Female.	Total.	Male.	Increase and Decrease.	Female.	Increase and Decrease.	Attended Normal School.		Normal Graduates.
1889,	901	9,222	10,123	\$108 88	Decrease, \$10 46	\$45 93	Increase, \$1 05	3,373	Increase, 127	2,689
1890,	1,017	9,307	10,324	126 58	Increase, 17 70	44 79	Decrease, 1 14	3,504	Increase, 161	2,819
1891,	1,016	9,630	10,646	118 07	Decrease, 8 51	48 17	Increase, 3 38	3,736	Increase, 232	3,070
1892,	992	9,973	10,965	134 22	Increase, 16 15	46 52	Decrease, 1 65	4,059	Increase, 323	3,267
1893,	989	10,244	11,233	140 73	Increase, 6 51	48 13	Increase, 1 61	4,131	Increase, 72	3,473
1894,	1,009	10,705	11,714	129 41	Decrease, 11 32	47 91	Decrease, 22	4,222	Increase, 91	3,575
1895,	1,046	10,981	12,027	128 55	Decrease, 86	48 38	Increase, 47	4,368	Increase, 146	3,734
1896,	1,078	11,197	12,275	136 03	Increase, 7 48	50 30	Increase, 1 92	4,540	Increase, 172	3,903
1897,	1,120	11,723	12,843	144 80	Increase, 8 77	52 20	Increase, 1 90	4,661	Increase, 121	4,103
1898,	1,174	12,029	13,203	137 50	Decrease, 7 30	51 44	Decrease, 76	5,087	Increase, 426	4,425

The Number of Teachers.—The number of male teachers has increased during the year by 54, the number of female teachers by 306, the total increase being 360. The number of schools has increased by 306. So many new schools would require at least 306 additional teachers, and possibly more. Then there is the additional assistance needed in crowded rooms; also the appointment of new special teachers. The ratio of the men to the women in the increase is 1 to 5.8. The ratios of the men to the women for the past ten years are as follows: 1889, 1 to 10.2; 1890, 1 to 9.2; 1891, 1 to 9.5; 1892, 1 to 10.1; 1893, 1 to 10.4; 1894, 1 to 10.6; 1895, 1 to 10.5; 1896, 1 to 10.5; 1897, 1 to 10.5; and in 1898, according to the latest returns, 1 to 10.2. The number of teachers required by the public schools, that is, the number of teaching positions in them to be filled, is 11,768, or 1,435 less than the number of different teachers employed to fill them. In 1897 the number of positions was 1,542 less than the number of different teachers; in 1896, 1,593 less; in 1895, 1,618 less; in 1894, 1,641 less; in 1893, 1,482 less; in 1892, 1,479 less; in 1891, 1,419 less; in 1890, 1,389 less; and in 1889, 1,370 less. During this period of ten years the number of positions has increased by 3,015, the number of different teachers by 3,080. Inasmuch as the excess of the number of teachers over the number of positions roughly measures the changes going on in the teaching force, we may safely conclude that, for the past five years at least, there has been a marked trend towards greater permanency of tenure. It is certain that during these five years positions have been increasing in number while vacancies have been reducing. The ratio of the number of positions to the number of teachers employed to fill them was 1 to 1.16 in 1894, 1 to 1.16 in 1895, 1 to 1.15 in 1896, 1 to 1.14 in 1897 and 1 to 1.12 in 1898. The ratio in 1881, when data were first gathered to furnish it, was 1 to 1.18. Boston's ratio for 1897 was 1 to 1.07; for 1898, 1 to 1.06. Last year the ratio for 59 towns that paid salaries of less than \$30 a month to women was 1 to 1.41. In the larger places, where higher wages are paid, changes in the teaching force are comparatively infrequent; in the smaller places, where low wages are the rule, changes are numerous. The large

places are constantly drawing teachers from the small. "When I was a little fish," said a superintendent of schools, "I was preyed upon. Now that I'm a big fish, let the little fish beware." His remark reveals the struggle, in its more summary and merciless aspects, of the country superintendent to save his good teachers and of the city superintendent to capture them.

Decrease in the Salaries. — The table indicates a decrease of \$7.30 in the monthly wages of men and of 76 cents in the monthly wages of women. Whether the decrease has really taken place or not is not altogether clear. There are pitfalls in computing averages, into which those who make returns sometimes fall. There are, for example, two grades of teachers in a town, one grade paid \$700 a year and the other \$500. A careless person might place their average pay at \$600, without thinking of the number of teachers in each grade. The next year a careful person, noting that there are five teachers in the first grade and twenty in the second, would see that the twenty-five received an aggregate of \$13,500, or \$540 each. Here there is a reduction of \$60, or, on the basis of ten months' work, a reduction of \$6 per month. Obviously a reduction brought about in this way is not a real one, for the salaries in the case supposed have not changed. It is also important, in determining averages, to exclude from consideration special, temporary, evening, part-time or other teachers, whose wages are likely to modify the averages that are wanted, to wit, those of the great body of regular teachers. Committees were therefore directed last year for the first time to exclude from their determination of average salaries these special cases. This exclusion, if not made in previous years, would naturally tend, at least in places where teachers of drawing, music and the like are paid more than the great body of the teaching corps, to lower the averages of the rank and file, where there has been no real reduction of salary. Committees were also directed last year for the first time to report the average salaries of these four classes: men in high schools, women in high schools, men in the lower schools and women in the lower schools. They were also directed to return the number of teachers in each class for whom the average was determined. From these

latter returns the office has provided itself with the means of testing the averages worked out in the old way. Table XXIV. gives by counties the two sets of averages, the one based on the computations of school committees and the other on the computations of the office. In the former set the basis and methods of the computations are not known to the office; in the latter the basis is furnished the office and the computations are its own. The agreements, though not perfect, are so close that confidence in the showing of the table has been much strengthened. Thus the average pay per month for men, worked out by the office from the salaries of 1,026 men, is \$137.14. The average pay as worked out in the old way from the returns of the school committees, without knowledge of their method or of the number of men to whom it was applied, was \$137.50, the difference between the two being only 36 cents. The office average for 10,582 women is \$51.45; the school committee average, \$51.44, the difference being only one cent. The differences by counties are a little larger, but they so neutralize one another that they are nearly lost in the totals. It will be noticed further that the average for men in the high schools is only \$14.07 above that for men in the schools below. The 512 men in the lower schools, whose average pay is given, are nearly all principals of large grammar schools. Of the 514 men in the high school, whose average pay is given, fully half are not principals, but hold subordinate positions whose pay is generally less than that of grammar school principals. This drops the average pay of men in the high school nearly down to that of men in the grammar school. The average annual pay of 233 men who are principals of high schools is \$1,499.77; of 28 women who are principals of high schools, \$563.19. These women and some of the men are in charge of small country high schools, some of which are not kept the full legal time of ten months. Inasmuch as annual salaries are paid in full, some of them in eight, nine or ten instalments, corresponding to eight, nine or ten months of service, while not a few are paid in twelve instalments, monthly averages cannot be inferred from them directly without knowledge of these details of payment.

XXIV. Table giving the Average Salaries of Men and Women in the Public Schools.

COUNTIES.	AVERAGE WAGES PER MONTH OF MEN IN THE PUBLIC SCHOOLS.				Average in all Schools as returned by Committees.	AVERAGE WAGES PER MONTH OF WOMEN IN THE PUBLIC SCHOOLS.				Average in all Schools as returned by Committees.		
	IN HIGH SCHOOLS.		IN OTHER SCHOOLS.			IN HIGH SCHOOLS.		IN OTHER SCHOOLS.				
	Number.	Average.	Number.	Average.		Number.	Average.	Number.	Average.			
	Number.	Average.	Number.	Average.		Number.	Average.	Number.	Average.			
Barnstable, . .	15	\$99 07	22	\$60 67	37	\$76 23	12	\$51 17	140	\$36 71	152	\$37 85
Berkshire, . .	19	105 43	25	60 69	44	80 00	24	63 01	480	36 97	504	38 21
Bristol, . .	35	126 18	34	94 38	69	110 51	37	80 00	877	57 03	914	57 95
Dukes, . .	2	80 00	4	50 41	6	60 27	4	47 50	19	33 84	23	36 21
Essex, . .	58	131 82	36	127 82	94	130 28	107	69 03	1,100	47 17	1,267	49 01
Franklin, . .	10	104 25	5	34 26	15	80 92	20	51 35	282	33 45	302	34 63
Hampden, . .	21	159 26	28	109 43	49	130 78	46	80 52	658	45 06	704	47 37
Hampshire, . .	15	105 61	18	48 89	33	74 67	19	57 58	299	34 24	318	35 63
Middlesex, . .	100	144 63	87	150 29	187	147 26	220	74 07	1,881	53 38	2,101	55 54
Nantucket, . .	1	100 00	-	-	1	100 00	2	36 28	9	33 33	11	33 86
Norfolk, . .	39	131 86	35	102 12	74	117 79	70	64 32	576	49 25	646	50 88
Plymouth, . .	26	113 13	30	87 86	56	99 59	47	57 50	438	42 32	485	43 79
Suffolk, . .	90	219 52	140	200 07	230	207 68	119	96 85	1,595	63 44	1,714	65 75
Worcester, . .	83	120 67	48	90 07	131	109 45	135	63 54	1,306	42 75	1,441	44 69
	514	\$144 16	512	\$130 00	1,026	\$137 14	862	\$72 11	9,720	\$49 61	10,582	\$51 45
												\$51 44

Proportion of Normal School Pupils among Teachers. — The increase in the number of teachers who have attended normal schools is 426; in the number who are graduates of normal schools, 322. Both these items of increase are the largest for any single year since the establishment of normal schools. The proportion of normally trained teachers is increasing, as the following statement, compiled for a period of ten years, conclusively shows: —

YEARS.	PERCENTAGE OF THE WHOLE NUMBER OF DIFFERENT TEACHERS —	
	Who have attended Normal Schools.	Who are Graduates of Normal Schools.
1888-89,	33.3	26.6
1889-90,	34.0	27.3
1890-91,	35.1	29.0
1891-92,	37.0	29.8
1892-93,	38.8	30.9
1893-94,	36.0	30.5
1894-95,	36.3	31.0
1895-96,	37.0	31.8
1896-97,	36.3	31.9
1897-98,	38.5	33.5

Of the 61.5 per cent. who have not attended normal schools, a few have probably been appointed without reference to their preparation or fitness for their work; some have had a little preliminary training in local schools for the purpose; some began to teach before normal school preparation had attracted the attention of school committees as an important prerequisite; some are college graduates.

Certain Expenditures for State Reimbursement of Teachers' Salaries. — Chapter 408, Acts of 1896, provides as follows: —

With the approval of the state board of education there may be paid from the income of the school fund, to any town having a valua-

tion of less than two hundred and fifty thousand dollars, a sum not exceeding two dollars per week for the actual time of service of each teacher, approved by the school committee of said town after special examination as to exceptional ability, employed in the public schools of said town, which sum shall be added to the salary of such teacher: *provided*, that the amount paid by the town toward the salary of such teacher shall not be less than the average salary paid by said town to teachers in the same grade of school for the three years next preceding, and that by said addition no teacher shall receive more than ten dollars per week.

This act was approved May 16, 1896, and became operative June 16, 1896.

An amendment changing two hundred and fifty thousand dollars to three hundred and fifty thousand became operative on the date of its approval, June 10, 1897.

The towns entitled, for the school year of 1898 and 1899, to the benefits of the law as amended, are the following: —

Barnstable County. — Eastham, Mashpee, Truro.

Berkshire County. — Alford, Clarksburg, Florida, Hancock, Monterey, Mount Washington, New Ashford, Otis, Peru, Richmond, Sandisfield, Savoy, Tyringham, Washington, Windsor.

Dukes County. — Chilmark, Gay Head, Gosnold.

Franklin County. — Charlemont, Hawley, Heath, Leverett, Leyden, Monroe, New Salem, Rowe, Shutesbury, Warwick, Wendell.

Hampden County. — Holland, Montgomery, Tolland, Wales.

Hampshire County. — Chesterfield, Cummington, Goshen, Greenwich, Middlefield, Pelham, Plainfield, Prescott, Westhampton, Worthington.

Middlesex County. — Boxborough, Carlisle, Dunstable.

Plymouth County. — Halifax, Plympton.

Worcester County. — Dana, Oakham, Paxton, Phillipston.

The foregoing list is determined by the valuations of the towns for May 1, 1898, as returned to the Secretary of the Commonwealth.

From Sept. 1, 1896, to July 1, 1897, the first year of the new law, 127 teachers in 23 towns received additions to their pay amounting to \$4,117.84.

The following table gives the cost of executing the law for the school year beginning in September, 1897, and ending in June or July, 1898: —

XXV. Table showing Salary Reimbursements on Account of Public School Teachers in Small Towns.

TOWNS.	Number of Different Teachers affected.	To what Date.	Amount claimed.
Alford,	1	June 27, 1898,	\$24 00
Boxborough,	4	June 17, 1898,	272 00
Carlisle,	1	June -, 1898,	32 04
Chesterfield,	1	June 30, 1898,	15 40
Chilmark,	2	June 24, 1898,	48 00
Clarksburg,	1	Nov. 13, 1896,	24 00
Clarksburg,	3	June 24, 1898,	204 00
Cummington,	6	July 1, 1898,	210 80
Dana,	3	June -, 1898,	68 00
Dunstable,	2	June 24, 1898,	90 00
Eastham,	3	June 10, 1898,	162 00
Florida,	8	July 1, 1898,	226 00
Gay Head,	2	June 1, 1898,	63 00
Goshen,	4	July 2, 1898,	192 00
Greenwich,	4	July 1, 1898,	66 24
Hawley,	9	July 1, 1898,	312 00
Heath,	9	June 27, 1898,	215 20
Holland,	1	June 24, 1898,	70 00
Leverett,	7	June 17, 1898,	225 58
Leyden,	6	June 30, 1898,	150 00
Mashpee,	1	June 17, 1898,	64 00
Middlefield,	5	July 1, 1898,	204 00
Monroe,	6	July 1, 1898,	260 56
Monterey,	6	July 1, 1898,	188 00
Montgomery,	5	July 1, 1898,	181 00
New Salem,	8	June -, 1898,	260 00
Otis,	2	July 1, 1898,	26 00
Pelham,	5	June 11, 1898,	235 20
Peru,	5	June 24, 1898,	198 00
Phillipston,	3	June 24, 1898,	47 06
Plainfield,	8	July 1, 1898,	148 64
Plympton,	1	June 24, 1898,	72 00
Prescott,	8	June 17, 1898,	296 00

XXV. — *Table showing Salary Reimbursements, etc. — Concluded.*

TOWNS.	Number of Different Teachers affected.	To what Date.	Amount claimed.
Richmond,	5	July 1, 1898,	\$200 00
Rowe,	4	July 8, 1898,	192 00
Sandisfield,	5	July 1, 1898,	40 00
Savoy,	9	July 1, 1898,	358 00
Shutesbury,	3	June 24, 1898,	52 67
Tolland,	6	June 29, 1898,	215 00
Wales,	6	June 17, 1898,	334 00
Warwick,	6	June 24, 1898,	234 00
Washington,	10	July 15, 1898,	384 80
Wendell,	7	July 1, 1898,	294 00
Westhampton,	4	June 24, 1898,	256 00
Windsor,	11	July 8, 1898,	264 00
Worthington,	4	July 1, 1898,	158 00
45 towns,	220	—	\$7,833 19

EXPENSES OF TEXT-BOOKS AND SUPPLIES.

XXVI. *Table showing the Sum appropriated and the Rate per Scholar, for the Past Ten Years, for Books, Stationery, Maps, Charts, etc.*

YEARS.	Total Expense of Books, etc.	Expense of Books, etc., per Pupil.	YEARS.	Total Expense of Books, etc.	Expense of Books, etc., per Pupil.
1888-89, .	\$427,155 56	\$1 42	1893-94, .	\$581,684 57	\$1 77
1889-90, .	469,924 02	1 54	1894-95, .	620,779 10	1 82
1890-91, .	494,545 27	1 60	1895-96, .	522,652 91	1 50
1891-92, .	532,530 73	1 70	1896-97, .	578,146 59	1 59
1892-93, .	562,228 00	1 75	1897-98, .	592,905 76	1 56
Average for ten years,			\$1 62		

Cost of Text-books and Supplies. — The cost of text-books and supplies the past year was \$1.56 per pupil, as against an

average of \$1.62 for the past ten years. This cost is ascertained by dividing the expense by the number of pupils in the average membership. Three years ago this table was freed from certain irrelevant items that had been creeping into it and swelling the apparent cost of text-books and supplies beyond the actual cost. The result is seen in the sharp fall in this cost. For the past three years a separate head or class has been provided in the blank for school returns for such alien sundries as had previously worked their way into this table for lack of a better place, or had been omitted altogether. The amount of these sundries for 1896 was \$247,464.40; for 1897, \$296,350.78; for 1898, \$335,449.77. In the sixty-first report, pages 142-144, the avoidable difficulties, the great advantages and the surprising cheapness of the free text-book system are considered at some length.

EXPENSE OF CONVEYING CHILDREN.

XXVII. Table showing the Amount expended for transporting Children to School for the Past Ten Years.

YEARS.	Percentage of Increase.	Sum expended.	YEARS.	Percentage of Increase.	Sum expended.
1888-89, .	—	\$22,118 38	1893-94, .	.26	\$63,617 68
1889-90, .	.09	24,145 12	1894-95, .	.19	76,608 29
1890-91, .	.27	30,648 68	1895-96, .	.16	91,136 11
1891-92, .	.26	38,726 07	1896-97, .	.12	105,317 13
1892-93, .	.31	50,590 41	1897-98, .	.17	123,032 41

Growth of the Policy of consolidating Certain Schools.—The conveyance of pupils to and from schools at public expense was authorized by chapter 132 of the Acts of 1869. The first returns of expenditures under the law were not made until 1888-89. For twenty years they were not large enough to attract special notice. In 1888-89 the sum expended for the purpose was first given as a separate item. It was \$22,118.38. Every year since then the gain on the preceding year has been conspicuous. The item for 1897-98 is 556 per cent. larger

than that for 1888-89. This gain means the consolidation of feeble schools and the adoption of a more virile school policy. It means usually better buildings, better equipment, better teachers and better work. It means a larger expense for fewer schools, the aggregate expenditure, however, not varying much from that which prevailed before consolidation. The money saved by consolidation pays largely, if not fully, for the transportation, the better schoolrooms, the better equipment, the better salaries and the greater efficiency.

EXPENSE OF SUPERVISION.

XXVIII. Table showing the Expense of Supervision, both by School Committees and by Superintendents, for Ten Years from 1888.

YEARS.	EXPENSE OF SUPERVISION.		
	By School Committees.	By Superintendents.	Total.
1888,	\$112,772 53	\$101,324 90	\$214,097 43
1889-90,	112,649 15	114,993 28	227,642 43
1890-91,	110,038 84	135,124 79	245,163 63
1891-92,	96,491 48	153,208 48	249,699 96
1892-93,	111,570 23	173,194 13	284,764 36
1893-94,	113,038 77	186,856 64	299,895 41
1894-95,	112,701 51	196,952 48	309,653 99
1895-96,	113,765 40	202,908 67	316,674 07
1896-97,	118,344 80	207,745 66	326,090 46
1897-98,	124,092 86	209,039 13	333,131 99

Comments on Table XXVIII. — The expense of supervision has increased by \$7,041.53, of which \$6,348.06 belongs to school committees. The money expended for superintendents goes almost wholly to salaries; that for school committees in part for the service of members in towns that pay for such service, and in part for a great variety of miscellaneous expenses.

SUPERVISION BY SUPERINTENDENTS.

XXIX. Table showing by Counties the Number and Per Cent. of Towns and Cities not under Superintendents, also the Number of Towns and the Number and Per Cent. of Schools and Children under Superintendents.

COUNTIES, 1897-98.	NUMBER OF TOWNS NOT HAVING SUPERINTENDENTS.		NUMBER OF TOWNS WHICH EMPLOY SUPERINTENDENTS.								
	Number.	Per Cent.	UNDER LAWS OF --				Total Towns.	SCHOOLS.		CHILDREN.	
			1854.	1870.	1888-93.	Number.		Per Cent.	Number.	Per Cent.	
Barnstable,	2	13.3	2	-	11	13	133	87.5	4,533	90.0	
Berkshire,	15	46.8	5	2	10	17	371	80.6	15,939	87.7	
Bristol,	5	25.0	9	-	6	15	728	94.0	37,759	96.2	
Dukes,	2	28.5	-	-	5	5	21	91.3	608	91.0	
Essex,	14	40.0	13	4	3	20	1,045	86.9	47,290	88.3	
Franklin,	6	23.0	2	-	18	20	214	83.5	6,742	89.0	
Hampden,	4	17.3	7	-	12	19	614	96.9	27,242	98.9	
Hampshire,	12	52.1	3	-	8	11	199	68.8	8,134	78.5	
Middlesex,	2	3.7	24	5	23	52	1,947	98.8	96,145	99.1	
Nantucket,	1	100.0	-	-	-	-	-	-	-	-	
Norfolk,	6	21.4	15	2	5	22	574	91.5	25,679	92.3	
Plymouth,	9	33.3	5	2	11	18	383	82.1	16,747	85.7	
Suffolk,	-	-	4	-	-	4	1,670	100.0	90,872	100.0	
Worcester,	9	15.2	15	-	35	50	1,250	93.9	55,769	95.2	
	87	24.6	104	15	147	266	9,149	92.7	433,459	95.0	

Supervision on a Solid Basis. — Supervision by superintendents of schools not only holds its own, but it gains ground each year. The number of superintendents last year was 164; this year, 166. The number of towns without superintendents last year was 90; this year, 87. It is much to be regretted that there are still towns in Massachusetts that are either blind to the merits of such supervision or so hampered that they are compelled to forego it. Nobody claims that supervision by school committees is a failure. Such oversight is indispensable. But in the nature of the case, it has to deal more with the business than with the educational aspects of the schools. Our schools owe much to school committees, and must still depend upon them for wise general direction. But on the strictly professional side of school work, school committees have in general neither the special qualifications nor the time to do what it is almost universally agreed must be done to insure that efficiency which the times demand. In proportion as committees entrust to a competent person the educational side of their work, the more time they have for its business and legislative sides and the more willing are the better citizens to serve on school boards. Make all the exceptions that should be allowed for the splendid service of able committee men, the general statement still holds good that there is more of interest, progress, life in the schools of towns that employ superintendents than in the schools of towns that do not. It stands to reason that the watchful oversight of a wise, sympathetic and stimulating inspector should tone up the teaching.

Supervision Districts more easily formed. — The Legislature of 1898 smoothed the way to forming additional superintendency districts (1) by providing that towns whose valuation is below \$2,500,000 may unite with towns whose valuation is above, with proportional State aid to the former; and (2) by authorizing towns to give permission to their school committees to arrange for such unions as they may deem expedient. The first provision is a convenient one for certain towns that cannot otherwise secure supervision for their schools, and the second allows greater plasticity and ease in forming districts. It is earnestly desired that towns which have not thus far taken advantage of the law will now endeavor to do so. Among the considerations that should lead them to such endeavor are the following: —

1. The State helps to support their schools, and is interested that its money shall be used to best advantage.

2. The State offers to help them to the employment of a superintendent, and, if its offer is accepted, to give additional help to their schools.

3. Ninety-five per cent. of the people of the State by their voluntary employment of superintendents bear impressive witness to the value of their service.

4. It would cost these towns but little more than they now expend to secure such supervision. Some of these towns, indeed, it would not cost any more, or, if more, only a sum so small as hardly to merit mention, if their school committees were disinterested enough to serve without pay like those of the cities and many towns.

It must be said, in justice to many of these towns, that they have tried — more than thirty of them — at sundry times to form districts with other towns, but have failed to do so because of the indisposition of such towns to coöperate with them. Out of these willing towns, it is safe to say that some excellent districts might have been formed, if the units needed for these districts could all have acted together. But if, of the towns A, B, C and D that are essential to the formation of a district, only A, B and C are willing one year, only A, B and D the next year, and only B, C, and D the third, nothing comes of it, though they are all in a sense willing, because they are not all willing at the same time; or, if anything comes of it, it is more likely to be some unfortunate town pique that is unfavorable to a subsequent expression of readiness.

Serving on School Boards without Pay. — In case a superintendent of schools is employed by a city, the law provides that the school committee shall receive no pay; in case he is employed by a town, the school committee shall receive no pay unless the town by vote otherwise provides; but in case he is employed by a superintendency district, the school committees thereof are entitled to pay for their services. The result is that we have unpaid committees in the cities and large towns, where the work is exacting, and paid committees in the small towns, where the work is much lighter. Further, the committees are unpaid where ability to pay them is greatest, and paid where

ability to pay them is the least. The unpaid committee of Boston, for instance, deals with more than 80,000 pupils and 1,600 teachers, and controls an annual expenditure of more than \$3,000,000. The paid committee of the town of Blank, — the case is hypothetical, but it has close parallels in fact, — deals with 25 or 50 pupils, appoints one or two teachers, controls the expenditure of \$400, — more or less, — which it receives from the income of the State fund, and a small additional sum, — \$3 or more per child, raised by taxation to clear the law, — and charges \$50, \$75 or more for its services. Ready cash is scarce in a country town; a little goes a great way; the service is rendered; the charge is legal, and, probably, not immoderate. In short, the office, from the rural point of view, pays; the pay is small, indeed, as an absolute sum, but in some cases it is ten, fifteen or twenty per cent. of the school money. It has even been known to absorb the whole of the small sum raised by local taxation, leaving the entire support of the schools to what the town gets from the State school fund. It would be preposterous, of course, to suggest payment for the school committee service of a great city like Boston on the basis of such percentages from rural towns; for, if ten per cent. of Boston's annual expenditure for schools should go for such service, it would mean the princely sum of more than \$300,000. The question naturally arises: Why should the State authorize payment to school committees in the small towns of district superintendencies, and discourage or forbid it to committees everywhere else? The chief if not the only answer is this: It was not deemed expedient to endanger the passage of the original district supervision bill by incorporating in it a provision supposed to be unpopular with school committees. It is gratifying to note, however, that many school committees legally entitled to pay have voluntarily waived it in the interests of their respective districts. If other committees — especially in the more heavily burdened towns — should conclude to do the same, one obstacle to the voluntary extension of supervision by superintendents would disappear. It is a pertinent question whether, on the whole, it is not more feasible to secure able and disinterested service for the schools with unpaid than with paid committees. The State in its action thus far

seems to incline, with the qualifications mentioned, to unpaid service.

Towns not under Supervision by Superintendents. — The following table shows what towns are without superintendents of schools : —

XXX. *Table of Towns without Superintendents of Schools.*

TOWNS.	Population, 1895.	Valuation.	Number of Schools.	Number of Different Pupils.
<i>Barnstable County.</i>				
1. Chatham,	1,809	\$834,656	13	321
2. Truro,	815	326,460	6	180
<i>Berkshire County.</i>				
1. Alford,	280	171,633	2	31
2. Clarksburg,	1,009	222,084	4	238
3. Hancock,	511	301,754	5	100
4. Hinsdale,	1,650	629,893	11	318
5. Lanesborough,	848	457,489	6	163
6. Lee,	4,066	1,727,229	14	662
7. Monterey,	464	229,155	6	109
8. Mt Washington,	136	81,542	2	26
9. New Ashford,	116	55,935	1	26
10. Otis,	518	202,332	5	87
11. Peru,	305	115,485	4	55
12. Sandisfield,	802	338,960	10	147
13. Savoy,	504	156,071	7	103
14. Tyringham,	363	213,437	5	57
15. Windsor,	556	182,226	7	96
<i>Bristol County.</i>				
1. Berkley,	955	388,219	7	186
2. Freetown,	1,405	837,955	7	238
3. Rehoboth,	1,810	706,340	14	338
4. Seekonk,	1,465	923,215	8	293
5. Somerset,	1,983	1,039,440	10	421
<i>Dukes County.</i>				
1. Gay Head,	169	25,621	1	40
2. Gosnold,	140	224,148	1	19
<i>Essex County.</i>				
1. Amesbury,	9,986	5,119,261	31	1,246
2. Boxford,	727	877,342	4	104
3. Danvers,	8,181	4,962,165	31	1,668
4. Essex,	1,587	1,003,547	9	330
5. Hamilton,	1,356	1,783,970	7	245
6. Ipswich,	4,720	3,052,525	21	835
7. Lynnfield,	818	654,283	4	157
8. Merrimac,	2,301	1,320,498	12	461
9. Middleton,	838	541,582	3	136
10. Newbury,	1,489	1,011,609	9	245

XXX. *Towns without Superintendents of Schools—Con.*

TOWNS.	Population, 1895.	Valuation.	Number of Schools.	Number of Different Pupils.
<i>Essex County—Con.</i>				
11. Salisbury,	1,300	\$641,030	7	232
12. Topsfield,	1,033	785,260	4	184
13. Wenham,	886	797,025	5	138
14. West Newbury,	1,643	859,167	10	270
<i>Franklin County.</i>				
1. Ashfield,	1,013	507,188	10	185
2. Bernardston,	778	395,574	6	124
3. Heath,	476	151,888	6	117
4. Leyden,	363	293,912	5	67
5. New Salem,	869	276,470	10	170
6. Shutesbury,	444	162,669	5	62
<i>Hampden County.</i>				
1. Holland,	199	86,817	1	21
2. Montgomery,	275	139,497	5	46
3. Russell,	846	479,576	7	165
4. Tolland,	309	140,378	6	62
<i>Hampshire County.</i>				
1. Belchertown,	2,161	868,610	20	539
2. Chesterfield,	589	277,774	6	99
3. Cummington,	750	283,254	6	139
4. Enfield,	990	583,120	7	238
5. Goshen,	304	136,592	3	67
6. Greenwich,	481	249,865	3	78
7. Hadley,	1,704	954,212	13	307
8. Huntington,	1,450	496,877	9	326
9. Pelham,	486	175,985	4	97
10. Plainfield,	450	157,988	6	86
11. Prescott,	401	161,502	5	72
12. Worthington,	648	309,676	8	174
<i>Middlesex County.</i>				
1. Groton,	2,192	2,701,653	14	465
2. Wilmington,	1,420	1,035,190	9	322
<i>Nantucket County.</i>				
1. Nantucket,	3,016	3,366,242	10	363
<i>Norfolk County.</i>				
1. Avon,	1,626	805,110	7	295
2. Holbrook,	2,298	1,182,735	12	481
3. Medfield,	1,872	1,312,312	8	308
4. Norfolk,	882	520,337	4	176
5. Randolph,	3,694	1,882,300	17	723
6. Westwood,	1,023	964,567	5	141
<i>Plymouth County.</i>				
1. Carver,	1,016	825,305	7	192
2. Halifax,	497	269,209	3	92

XXX. *Towns without Superintendents of Schools* — Con.

TOWNS.	Population, 1895.	Valuation.	Number of Schools.	Number of Different Pupils.
<i>Plymouth County</i> — Con.				
3. Lakeville,	870	\$486,189	6	144
4. Marion,	759	972,170	6	146
5. Pembroke,	1,223	639,225	8	217
6. Plympton,	549	317,012	3	61
7. Rochester,	1,021	492,090	6	169
8. Rockland,	5,523	2,989,890	23	1,100
9. Wareham,	3,367	2,121,518	21	662
<i>Worcester County.</i>				
1. Ashburnham,	2,148	1,042,290	13	424
2. Auburn,	1,598	557,627	9	338
3. Charlton,	1,877	903,650	14	362
4. Dana,	717	308,115	5	134
5. Lancaster,	2,180	3,064,568	12	463
6. Oakham,	605	312,723	5	109
7. Paxton,	426	289,529	2	75
8. Rutland,	978	565,134	6	232
9. Sutton,	3,420	1,272,082	15	642
Totals (towns, 87), . .	122,327	\$72,289,239	714	22,682

The Two Groups compared. — The seven towns of the foregoing list whose valuation exceeds \$2,500,000 are Amesbury, Danvers, Ipswich, Groton, Nantucket, Rockland and Lancaster. They are ineligible to State aid under the district supervision law. The remaining 80 towns are eligible to such aid.

	Population.	Valuation.	Number of Schools.	Number of Pupils.
Seven towns,	35,798	\$25,256,304	142	6,140
Eighty towns,	86,529	47,032,935	572	16,542
Seven towns,	29 per cent.	35 per cent.	20 per cent.	27 per cent.
Eighty towns,	71 per cent.	65 per cent.	80 per cent.	73 per cent.

Comparing the list with that of last year, we find that, of the 11 towns then ineligible to State help, 4 have since appointed superintendents, namely, Arlington, Great Barrington,

Hyde Park and Lenox. Of the towns eligible to State help, 1, New Braintree, has entered a district, and 1, Bernardston, has withdrawn. The new town of Westwood has not appointed a superintendent. Thus the number of towns in the list is 87 instead of 90, as last year. The population of the list as a whole has been reduced by 24,748; the valuation, by \$21,596,-828; the number of teachers, by 105; and the number of pupils, by 4,526. And yet the population, the valuation, the number of teachers and the number of pupils in the towns of this year's list that are eligible to State help are all larger than in the eligible towns of last year's list. In other words, although the State as a whole has gained handsomely in supervision, there has been a slight retrogression in the case of the small towns.

The average number of pupils per school in the 7 towns of the larger group is 43; in the 80 towns of the smaller, 29. Were the schools of the smaller group as small as those of the larger, they would number 212 instead of 142, or 70 more. Were the schools of the larger group as large as those of the smaller, they would number 385 instead of 572, or 187 less. The amount of taxable property per child in the first group is \$4,113; in the second, \$2,843. These figures give a glimpse of the more serious nature of the school problems in the group eligible to State help than in the ineligible group.

XXXI. Table of Towns and Cities employing Superintendents of Schools, arranged by Counties.

BY COUNTIES.	Superintendent.	Address.
<i>Barnstable.</i>		
1. Barnstable, . . .	F. W. Kingman, . . .	Hyannis.
2. Bourne, . . .	Burt J. Tice, . . .	Sandwich.
3. Brewster, . . .	Seth H. Chace, . . .	Harwich.
4. Dennis, . . .	W. E. Chaffin, . . .	West Dennis.
5. Eastham, . . .	Seth H. Chace, . . .	Harwich.
6. Falmouth, . . .	Asa O. Stanger, . . .	Falmouth.
7. Harwich, . . .	Seth H. Chace, . . .	Harwich.
8. Mashpee, . . .	Burt J. Tice, . . .	Sandwich.
9. Orleans, . . .	Seth H. Chace, . . .	Harwich.
10. Provincetown, . . .	C. W. Fearing, . . .	Provincetown.
11. Sandwich, . . .	Burt J. Tice, . . .	Sandwich.
12. Wellfleet, . . .	C. W. Fearing, . . .	Provincetown.
13. Yarmouth, . . .	W. E. Chaffin, . . .	West Dennis.

XXXI. *Towns and Cities employing Superintendents, etc. — Con.*

BY COUNTIES.	Superintendent.	Address.
<i>Berkshire.</i>		
1. Adams, . . .	John C. Gray, . . .	Adams.
2. Becket, . . .	George L. Lamphier, . . .	Becket.
3. Cheshire, . . .	Earl Ingalls, . . .	Dalton.
4. Dalton, . . .	Earl Ingalls, . . .	Dalton.
5. Egremont, . . .	Clarence E. Brockway, . . .	Sheffield.
6. Florida, . . .	Elmer F. Howard, . . .	Charlemont.
7. Great Barrington, . . .	Gilman C. Fisher, . . .	Great Barrington.
8. Lenox, . . .	Gilman C. Fisher, . . .	Great Barrington.
9. New Marlborough, . . .	Clarence E. Brockway, . . .	Sheffield.
10. North Adams, . . .	I. Freeman Hall, . . .	North Adams.
11. Pittsfield, . . .	Eugene Bouton, . . .	Pittsfield.
12. Richmond, . . .	Clarence E. Brockway, . . .	Sheffield.
13. Sheffield, . . .	Clarence E. Brockway, . . .	Sheffield.
14. Stockbridge, . . .	Alfred W. Rogers, . . .	Stockbridge.
15. Washington, . . .	George L. Lamphier, . . .	Becket.
16. West Stockbridge, . . .	Clarence E. Brockway, . . .	Sheffield.
17. Williamstown, . . .	Walter G. Mitchell, . . .	Williamstown.
<i>Bristol.</i>		
1. Acushnet, . . .	E. B. Gray, . . .	Fairhaven.
2. Attleborough, . . .	J. O. Tiffany, . . .	Attleborough.
3. Dartmouth, . . .	Winthrop N. Crocker, . . .	North Dartmouth.
4. Dighton, . . .	Joseph E. Sears, . . .	Dighton.
5. Easton, . . .	Edward B. Maglathlin, . . .	North Easton.
6. Fairhaven, . . .	E. B. Gray, . . .	Fairhaven.
7. Fall River, . . .	William C. Bates, . . .	Fall River.
8. Mansfield, . . .	Edward P. Pitts, . . .	Mansfield.
9. New Bedford, . . .	William E. Hatch, . . .	New Bedford.
10. North Attleborough, . . .	James W. Brehaut, . . .	North Attleborough.
11. Norton, . . .	A. B. Cole, . . .	Plainville.
12. Raynham, . . .	Frank O. Jones, . . .	East Bridgewater.
13. Swansea, . . .	Orrin A. Gardner, . . .	Swansea Centre.
14. Taunton, . . .	C. F. Boyden, . . .	Taunton.
15. Westport, . . .	Winthrop N. Crocker, . . .	North Dartmouth.
<i>Dukes.</i>		
1. Chilmark, . . .	Clifton A. Snell, . . .	Edgartown.
2. Cottage City, . . .	Clifton A. Snell, . . .	Edgartown.
3. Edgartown, . . .	Clifton A. Snell, . . .	Edgartown.
4. Tisbury, . . .	Clifton A. Snell, . . .	Edgartown.
5. West Tisbury, . . .	Clifton A. Snell, . . .	Edgartown.
<i>Essex.</i>		
1. Andover, . . .	George E. Johnson, . . .	Andover.
2. Beverly, . . .	Adelbert L. Safford, . . .	Beverly.
3. Georgetown, . . .	W. O. Cartwright, . . .	Georgetown.
4. Gloucester, . . .	Freeman Putney, . . .	Gloucester.
5. Groveland, . . .	W. O. Cartwright, . . .	Georgetown.
6. Haverhill, . . .	Roscoe D. McKeen, . . .	Haverhill.
7. Lawrence, . . .	John E. Burke, . . .	Lawrence.
8. Lynn, . . .	Orsamus B. Bruce, . . .	Lynn.
9. Manchester, . . .	George P. Armstrong, . . .	Belmont.

XXXI. *Towns and Cities employing Superintendents, etc.* — Con.

BY COUNTIES.	Superintendent.	Address.
<i>Essex — Con.</i>		
10. Marblehead, . . .	John B. Gifford, . . .	Peabody.
11. Methuen, . . .	A. Everett White, . . .	Methuen.
12. Nahant, . . .	O. A. Tuttle, . . .	Nahant.
13. Newburyport, . . .	William P. Lunt, . . .	Newburyport.
14. North Andover, . . .	George E. Chickering, . . .	Lawrence.
15. Peabody, . . .	John B. Gifford, . . .	Peabody.
16. Rockport, . . .	Mary L. Lincoln, . . .	Rockport.
17. Rowley, . . .	W. O. Cartwright, . . .	Georgetown.
18. Salem, . . .	John W. Perkins, . . .	Salem.
19. Saugus, . . .	Charles E. Stevens, . . .	Stoneham.
20. Swampscott, . . .	Gardner P. Balch, . . .	Swampscott.
<i>Franklin.</i>		
1. Buckland, . . .	C. P. Hall, . . .	Shelburne Falls.
2. Charlemont, . . .	Elmer F. Howard, . . .	Charlemont.
3. Colrain, . . .	C. P. Hall, . . .	Shelburne Falls.
4. Conway, . . .	Louis A. Pratt, . . .	Williamsburg.
5. Deerfield, . . .	Chester M. Barton, . . .	Hatfield.
6. Erving, . . .	Lizzie A. Mason, . . .	Orange.
7. Gill, . . .	Julius E. Warren, . . .	Northfield.
8. Greenfield, . . .	D. P. Dame, . . .	Greenfield.
9. Hawley, . . .	Elmer F. Howard, . . .	Charlemont.
10. Leverett, . . .	Chester M. Barton, . . .	Hatfield.
11. Monroe, . . .	Elmer F. Howard, . . .	Charlemont.
12. Montague, . . .	Alfred Turner, . . .	Turners Falls.
13. Northfield, . . .	Julius E. Warren, . . .	Northfield.
14. Orange, . . .	Lizzie A. Mason, . . .	Orange.
15. Rowe, . . .	Elmer F. Howard, . . .	Charlemont.
16. Shelburne, . . .	C. P. Hall, . . .	Shelburne Falls.
17. Sunderland, . . .	Louis A. Pratt, . . .	Williamsburg.
18. Warwick, . . .	Julius E. Warren, . . .	Northfield.
19. Wendell, . . .	Lizzie A. Mason, . . .	Orange.
20. Whately, . . .	Louis A. Pratt, . . .	Williamsburg.
<i>Hampden.</i>		
1. Agawam, . . .	Herbert E. Richardson, . . .	Southwick.
2. Blandford, . . .	L. Belle Tiffany, . . .	Russell.
3. Brimfield, . . .	Frank J. Sherman, . . .	Monson.
4. Chester, . . .	George L. Lamphier, . . .	Becket.
5. Chicopee, . . .	C. A. Brodeur, . . .	Chicopee.
6. East Longmeadow, . . .	Mary L. Poland, . . .	Springfield.
7. Granville, . . .	Herbert E. Richardson, . . .	Southwick.
8. Hampden, . . .	Mary L. Poland, . . .	Springfield.
9. Holyoke, . . .	Preston W. Search, . . .	Holyoke.
10. Longmeadow, . . .	Mary L. Poland, . . .	Springfield.
11. Ludlow, . . .	Mary L. Poland, . . .	Springfield.
12. Monson, . . .	F. J. Sherman, . . .	Monson.
13. Palmer, . . .	A. C. Thompson, . . .	Palmer.
14. Southwick, . . .	Herbert E. Richardson, . . .	Southwick.
15. Springfield, . . .	Thomas M. Balliet, . . .	Springfield.
16. Wales, . . .	Albert Robinson, . . .	Warren.
17. West Springfield, . . .	Ulysses G. Wheeler, . . .	West Springfield.

XXXI. Towns and Cities employing Superintendents, etc. — Con.

By COUNTIES.	Superintendent.	Address.
<i>Hampden — Con.</i>		
18. Westfield, . . .	G. H. Danforth, . . .	Westfield.
19. Wilbraham, . . .	Mary L. Poland, . . .	Springfield.
<i>Hampshire.</i>		
1. Amherst, . . .	A. H. Hardy, . . .	Amherst.
2. Easthampton, . . .	W. D. Miller, . . .	Easthampton.
3. Granby, . . .	E. H. McLachlin, . . .	South Hadley Falls.
4. Hatfield, . . .	Chester M. Barton, . . .	Hatfield.
5. Middlefield, . . .	George L. Lamphier, . . .	Becket.
6. Northampton, . . .	J. H. Carfrey, . . .	Northampton.
7. South Hadley, . . .	E. H. McLachlin, . . .	South Hadley Falls.
8. Southampton, . . .	W. D. Miller, . . .	Easthampton.
9. Ware, . . .	S. W. Hallett, . . .	Ware.
10. Westhampton, . . .	W. D. Miller, . . .	Easthampton.
11. Williamsburg, . . .	Louis A. Pratt, . . .	Williamsburg.
<i>Middlesex.</i>		
1. Acton, . . .	Andrew J. Thomson, . . .	Littleton.
2. Arlington, . . .	Frank S. Sutcliffe, . . .	Arlington.
3. Ashby, . . .	Fairfield Whitney, . . .	Townsend.
4. Ashland, . . .	Alvan R. Lewis, . . .	Hopkinton.
5. Ayer, . . .	Arthur P. Irving, . . .	Ayer.
6. Bedford, . . .	L. T. McKenney, . . .	Bedford.
7. Belmont, . . .	George P. Armstrong, . . .	Belmont.
8. Billerica, . . .	L. T. McKenney, . . .	Bedford.
9. Boxborough, . . .	Mrs. Jennie A. Littlefield, . . .	Boxborough.
10. Burlington, . . .	L. T. McKenney, . . .	Bedford.
11. Cambridge, . . .	Francis Cogswell, . . .	Cambridge.
Cambridge, . . .	Mary A. Lewis, Assistant, . . .	Cambridge.
12. Carlisle, . . .	G. H. Knowlton, . . .	Chelmsford.
13. Chelmsford, . . .	G. H. Knowlton, . . .	Chelmsford.
14. Concord, . . .	William L. Eaton, . . .	Concord.
15. Dracut, . . .	Junius C. Knowlton, . . .	Wamesit.
16. Dunstable, . . .	G. H. Knowlton, . . .	Chelmsford.
17. Everett, . . .	Randall J. Condon, . . .	Everett.
18. Framingham, . . .	S. F. Blodgett, . . .	South Framingham.
19. Holliston, . . .	Fred C. Tenney, . . .	Holliston.
20. Hopkinton, . . .	Alvan R. Lewis, . . .	Hopkinton.
21. Hudson, . . .	W. P. Kelly, . . .	Hudson.
22. Lexington, . . .	Jonathan I. Buck, . . .	Lexington.
23. Lincoln, . . .	L. T. McKenney, . . .	Bedford.
24. Littleton, . . .	Andrew J. Thomson, . . .	Littleton.
25. Lowell, . . .	Arthur K. Whitcomb, . . .	Lowell.
26. Malden, . . .	George E. Gay, . . .	Malden.
27. Marlborough, . . .	J. Asbury Pitman, . . .	Marlborough.
28. Maynard, . . .	J. Henry White, . . .	Maynard.
29. Medford, . . .	C. H. Morss, . . .	Medford.
30. Melrose, . . .	F. H. Nickerson, . . .	Melrose.
31. Natick, . . .	Frank E. Parlin, . . .	Natick.
32. Newton, . . .	George I. Aldrich, . . .	Newtonville.
33. North Reading, . . .	Junius C. Knowlton, . . .	Wamesit.
34. Pepperell, . . .	Alfred O. Tower, . . .	Pepperell.

XXXI. *Towns and Cities employing Superintendents, etc. — Con.*

BY COUNTIES.	Superintendent.	Address.
<i>Middlesex — Con.</i>		
35. Reading, . . .	Charles E. Hussey, . . .	Wakefield.
36. Sherborn, . . .	Fred C. Tenney, . . .	Holliston.
37. Shirley, . . .	Charles L. Clay, . . .	Harvard.
38. Somerville, . . .	Gordon A. Southworth, . . .	Somerville.
39. Stoneham, . . .	Charles E. Stevens, . . .	Stoneham.
40. Stow, . . .	J. Sidney Moulton, . . .	Stow.
41. Sudbury, . . .	R. F. Corlew, . . .	Cochituate.
42. Tewksbury, . . .	Junius C. Knowlton, . . .	Wamesit.
43. Townsend, . . .	Fairfield Whitney, . . .	Townsend.
44. Tyngsborough, . . .	Junius C. Knowlton, . . .	Wamesit.
45. Wakefield, . . .	Charles E. Hussey, . . .	Wakefield.
46. Waltham, . . .	William D. Parkinson, . . .	Waltham.
47. Watertown, . . .	M. A. Stone, . . .	Watertown.
48. Wayland, . . .	R. F. Corlew, . . .	Cochituate.
49. Westford, . . .	Andrew J. Thomson, . . .	Littleton.
50. Weston, . . .	Charles M. Eaton, . . .	Weston.
51. Winchester, . . .	Henry M. Walradt, . . .	Needham.
52. Woburn, . . .	Thomas Emerson, . . .	Woburn.
<i>Norfolk.</i>		
1. Bellingham, . . .	Elmer E. Sherman, . . .	Hopedale.
2. Braintree, . . .	Irving W. Horne, . . .	Braintree.
3. Brookline, . . .	Samuel T. Dutton, . . .	Brookline.
4. Canton, . . .	J. S. Perkins, . . .	Canton.
5. Cohasset, . . .	Nelson G. Howard, . . .	Hingham.
6. Dedham, . . .	Roderick W. Hine, . . .	Dedham.
7. Dover, . . .	R. F. Corlew, . . .	Cochituate.
8. Foxborough, . . .	L. A. Freeman, . . .	Foxborough.
9. Franklin, . . .	Ernest D. Daniels, . . .	Franklin.
10. Hyde Park, . . .	Frank O. Draper, . . .	Hyde Park.
11. Medway, . . .	Fred C. Tenney, . . .	Holliston.
12. Millis, . . .	D. Henry Whipple, . . .	Millis.
13. Milton, . . .	Myron W. Richardson, . . .	Milton.
14. Needham, . . .	H. M. Walradt, . . .	Needham.
15. Norwood, . . .	H. Allen Halstead, . . .	Norwood.
16. Quincy, . . .	Herbert W. Lull, . . .	Quincy.
17. Sharon, . . .	Edward P. Fitts, . . .	Mansfield.
18. Stoughton, . . .	Edward P. Fitts, . . .	Mansfield.
19. Walpole, . . .	Jefferson R. Potter, . . .	Walpole.
20. Wellesley, . . .	Marshall L. Perrin, . . .	Wellesley Hills.
21. Weymouth, . . .	I. M. Norcross, . . .	East Weymouth.
22. Wrentham, . . .	A. B. Cole, . . .	Plainville.
<i>Plymouth.</i>		
1. Abington, . . .	W. H. Sanderson, . . .	Bridgewater.
2. Bridgewater, . . .	W. H. Sanderson, . . .	Bridgewater.
3. Brockton, . . .	B. B. Russell, . . .	Brockton.
4. Brockton, . . .	Etta A. Blaisdell, Assistant,	Brockton.
5. Duxbury, . . .	E. L. Willard, . . .	Marshfield Hills.
6. East Bridgewater, . . .	Frank O. Jones, . . .	East Bridgewater.
7. Hanover, . . .	A. J. Curtis, . . .	West Hanover.
8. Hanson, . . .	A. J. Curtis, . . .	West Hanover.

XXXI. *Towns and Cities employing Superintendents, etc.* — Con.

BY COUNTIES.	Superintendent.	Address.
<i>Plymouth — Con.</i>		
8. Hingham, . . .	Nelson G. Howard, . . .	Hingham.
9. Hull, . . .	Nelson G. Howard, . . .	Hingham.
10. Kingston, . . .	Helen Holmes, . . .	Kingston.
11. Marshfield, . . .	E. L. Willard, . . .	Marshfield Hills.
12. Mattapoisett, . . .	E. B. Gray, . . .	Fairhaven.
13. Middleborough, . . .	Asher J. Jacoby, . . .	Middleborough.
14. Norwell, . . .	A. J. Curtis, . . .	West Hanover.
15. Plymouth, . . .	F. J. Heavens, . . .	Plymouth.
16. Scituate, . . .	E. L. Willard, . . .	Marshfield Hills.
17. West Bridgewater, . . .	Frank O. Jones, . . .	East Bridgewater.
18. Whitman, . . .	W. C. Hobbs, . . .	Whitman.
<i>Suffolk.</i>		
1. Boston, . . .	Edwin P. Seaver, . . .	Boston.
Boston, . . .	Ellis Peterson, Supervisor, . . .	Boston.
Boston, . . .	Robert C. Metcalf, " . . .	Boston.
Boston, . . .	George H. Conley, " . . .	Boston.
Boston, . . .	George H. Martin, " . . .	Boston.
Boston, . . .	Walter S. Parker, " . . .	Boston.
Boston, . . .	Sarah L. Arnold, " . . .	Boston.
2. Chelsea, . . .	Walter H. Small, . . .	Chelsea.
3. Revere, . . .	Frank J. Peaslee, . . .	Revere.
4. Winthrop, . . .	Frank A. Douglas, . . .	Winthrop.
<i>Worcester.</i>		
1. Athol, . . .	W. Scott Ward, . . .	Athol.
2. Barre, . . .	Mortimer H. Bowman, . . .	Barre.
3. Berlin, . . .	Corwin F. Palmer, . . .	Northborough.
4. Blackstone, . . .	Josiah B. Davis, . . .	Millville.
5. Bolton, . . .	Charles L. Clay, . . .	Harvard.
6. Boylston, . . .	Charles L. Clay, . . .	Harvard.
7. Brookfield, . . .	W. A. Hoyt, . . .	North Brookfield.
8. Clinton, . . .	Charles L. Hunt, . . .	Clinton.
9. Douglas, . . .	W. W. Brown, . . .	Douglas.
10. Dudley, . . .	C. S. Lyman, . . .	Oxford.
11. Fitchburg, . . .	Joseph G. Edgerly, . . .	Fitchburg.
12. Gardner, . . .	Louis P. Nash, . . .	Gardner.
13. Grafton, . . .	Stanley H. Holmes, . . .	Grafton.
14. Hardwick, . . .	Mortimer H. Bowman, . . .	Barre.
15. Harvard, . . .	Charles L. Clay, . . .	Harvard.
16. Holden, . . .	Etta L. Chapman, . . .	Leicester.
17. Hopedale, . . .	Elmer E. Sherman, . . .	Hopedale.
18. Hubbardston, . . .	C. E. Putney, . . .	Baldwinsville.
19. Leicester, . . .	Etta L. Chapman, . . .	Leicester.
20. Leominster, . . .	Thomas E. Thompson, . . .	Leominster.
21. Lunenburg, . . .	D. B. Locke, . . .	Winchendon.
22. Mendon, . . .	Elmer E. Sherman, . . .	Hopedale.
23. Milford, . . .	Charles W. Haley, . . .	Milford.
24. Millbury, . . .	C. S. Lyman, . . .	Oxford.
25. New Braintree, . . .	Edward Dixon, . . .	West Brookfield.
26. North Brookfield, . . .	W. A. Hoyt, . . .	North Brookfield.
27. Northborough, . . .	Corwin F. Palmer, . . .	Northborough.

XXXI. Towns and Cities employing Superintendents, etc.—Con.

BY COUNTIES.	Superintendent.	Address.
<i>Worcester — Con.</i>		
28. Northbridge, . . .	S. A. Melcher, . . .	Whitinsville.
29. Oxford, . . .	C. S. Lyman, . . .	Oxford.
30. Petersham, . . .	Mortimer H. Bowman, . .	Barre.
31. Phillipston, . . .	C. E. Putney, . . .	Baldwinsville.
32. Princeton, . . .	A. L. Barbour, . . .	Westminster.
33. Royalston, . . .	C. E. Putney, . . .	Baldwinsville.
34. Shrewsbury, . . .	Corwin F. Palmer, . . .	Northborough.
35. Southborough, . .	Corwin F. Palmer, . . .	Northborough.
36. Southbridge, . . .	J. T. Clark, . . .	Southbridge.
37. Spencer, . . .	W. C. Fickett, . . .	Spencer.
38. Sterling, . . .	A. L. Barbour, . . .	Westminster.
39. Sturbridge, . . .	Edward Dixon, . . .	West Brookfield.
40. Templeton, . . .	C. E. Putney, . . .	Baldwinsville.
41. Upton, . . .	Stanley H. Holmes, . . .	Grafton.
42. Uxbridge, . . .	Charles H. Bates, . . .	Uxbridge.
43. Warren, . . .	Albert Robinson, . . .	Warren.
44. Webster, . . .	A. H. Morse, . . .	Webster.
45. West Boylston, . .	Arthur P. Irving, . . .	Ayer.
46. West Brookfield, .	Edward Dixon, . . .	West Brookfield.
47. Westborough, . . .	H. C. Waldron, . . .	Westborough.
48. Westminster, . . .	A. L. Barbour, . . .	Westminster.
49. Winchendon, . . .	D. B. Locke, . . .	Winchendon.
50. Worcester, . . .	C. F. Carroll, . . .	Worcester.

XXXII. Alphabetical Table of Superintendents of Schools, with their Salaries, Addresses and Superintendencies.

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Aldrich, George I., . . .	\$3,800 00	Newtonville, . . .	Newton.
Armstrong, George P., . .	1,400 00	Belmont, . . .	Belmont, Manchester.
Arnold, Sarah L., . . .	3,780 00	Boston, . . .	Boston.
Balch, Gardner P., ¹ . . .	1,800 00	Swampscott, . . .	Swampscott.
Balliet, Thomas M., . . .	4,000 00	Springfield, . . .	Springfield.
Barbour, A. L., . . .	1,500 00	Westminster, . . .	Princeton, Sterling, Westminster.
Barton, Chester M., . . .	1,500 00	Hatfield, . . .	Deerfield, Hatfield, Leverett.
Bates, Charles H., ¹ . . .	1,825 00	Uxbridge, . . .	Uxbridge.
Bates, William C., . . .	3,300 00	Fall River, . . .	Fall River.
Blaisdell, Miss Etta A., Aes't,	1,000 00	Brockton, . . .	Brockton.
Blodgett, S. F., . . .	2,000 00	South Framingham, . . .	Framingham.
Bouton, Eugene, . . .	2,300 00	Pittsfield, . . .	Pittsfield.
Bowman, Mortimer H., . .	1,500 00	Barre, . . .	Barre, Hardwick, Petersham.

¹ Unites teaching with supervising.

XXXII. *Alphabetical Table of Superintendents, etc.* — Continued.

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Boyden, C. F., . . .	\$2,150 00	Taunton, . . .	Taunton.
Brehaut, James W., . .	1,500 00	North Attleborough,	North Attleborough.
Brockway, C. E., . . .	1,500 00	Sheffield, . . .	Egremont, New Marlborough, Richmond, Sheffield, West Stockbridge.
Brodeur, C. A., . . .	1,800 00	Chicopee, . . .	Chicopee.
Brown, W. W., ¹ . . .	150 00	Douglas, . . .	Douglas.
Bruce, Orsamus B., . .	2,700 00	Lynn, . . .	Lynn.
Buck, Jonathan I., ² . .	1,800 00	Lexington, . . .	Lexington.
Burke, John E., . . .	3,000 00	Lawrence, . . .	Lawrence.
Carfrey, J. H., . . .	1,800 00	Northampton, . .	Northampton.
Carroll, C. F., . . .	4,000 00	Worcester, . . .	Worcester.
Cartwright, W. O., . .	1,500 00	Georgetown, . . .	Georgetown, Groveland, Row- ley.
Chace, Seth H., . . .	1,500 00	Harwich, . . .	Brewster, Harwich, Orleans.
Chaffin, W. E., . . .	1,500 00	West Dennis, . .	Dennis, Yarmouth.
Chapman, Etta L., . . .	1,500 00	Leicester, . . .	Holden, Leicester.
Chickering, George E., ¹ .	550 00	Lawrence, . . .	North Andover.
Clarke, J. T., . . .	1,400 00	Southbridge, . .	Southbridge.
Clay, Charles L., . . .	1,500 00	Harvard, . . .	Bolton, Boylston, Harvard, Shirley.
Cogswell, Francis, . . .	3,000 00	Cambridge, . . .	Cambridge.
Cole, A. B., . . .	1,500 00	Plainville, . . .	Norton, Wrentham.
Condon, Randall J., . .	2,250 00	Everett, . . .	Everett.
Conley, George H., . .	3,780 00	Boston, . . .	Boston.
Corlew, R. F., . . .	1,000 00	Cochituate, . . .	Dover, Sudbury, Wayland.
Crocker, Winthrop N., .	1,500 00	North Dartmouth, .	Dartmouth, Westport.
Curtis, A. J., . . .	1,500 00	West Hanover, . .	Hanover, Hanson, Norwell.
Dame, D. P., . . .	1,750 00	Greenfield, . . .	Greenfield.
Danforth, G. H., . . .	1,900 00	Westfield, . . .	Westfield.
Daniels, E. D., ² . . .	1,800 00	Franklin, . . .	Franklin.
Davis, Josiah B., . . .	888 89	Millville, . . .	Blackstone.
Dixon, Edward, . . .	1,550 00	West Brookfield, .	New Braintree, Sturbridge, West Brookfield.
Douglas, Frank A., ² . .	1,500 00	Winthrop, . . .	Winthrop.
Draper, Frank O., . . .	2,500 00	Hyde Park, . . .	Hyde Park.
Dutton, Samuel T., . .	4,000 00	Brookline, . . .	Brookline.
Eaton, Charles M., ² . .	1,500 00	Weston, . . .	Weston.
Eaton, William L., ² . .	2,400 00	Concord, . . .	Concord.
Edgerly, Joseph G., . .	2,700 00	Fitchburg, . . .	Fitchburg.
Emerson, Thomas, . . .	2,000 00	Woburn, . . .	Woburn.

¹ Belongs to the school committee, or unites with supervising some other business or profession than teaching.² Unites teaching with supervising.

XXXII. *Alphabetical Table of Superintendents, etc.*—Continued.

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Fearing, C. W., . . .	\$1,500 00	Provincetown, .	Provincetown, Wellfleet.
Fickett, W. C., . . .	1,300 00	Spencer, . . .	Spencer.
Fisher, Gilman C., . . .	1,800 00	Great Barrington, .	Great Barrington, Lenox.
Fitts, Edward P., . . .	1,650 00	Mansfield, . . .	Mansfield, Sharon, Stoughton.
Freeman, L. A., . . .	—	Foxborough, . . .	Foxborough.
Gardner, Orrin A., ¹ . . .	100 00	Swansea Centre, .	Swansea.
Gay, George E., . . .	2,500 00	Malden, . . .	Malden.
Gifford, John B., . . .	2,000 00	Peabody, . . .	Marblehead, Peabody.
Gray, E. B., . . .	1,500 00	Fairhaven, . . .	Acushnet, Fairhaven, Matta- polsett.
Gray, John C., . . .	1,800 00	Adams, . . .	Adams.
Haley, Charles W., . . .	1,600 00	Milford, . . .	Milford.
Hall, C. P., . . .	1,500 00	Shelburne Falls, .	Buckland, Colrain, Shelburne.
Hall, I. Freeman, . . .	2,750 00	North Adams, .	North Adams.
Hallet, S. W., ² . . .	2,000 00	Ware, . . .	Ware.
Halstead, H. Allen, ² . . .	1,500 00	Norwood, . . .	Norwood.
Hardy, A. H., . . .	1,500 00	Amherst, . . .	Amherst.
Hatch, William E., . . .	3,500 00	New Bedford, . . .	New Bedford.
Heavens, F. J., . . .	2,000 00	Plymouth, . . .	Plymouth.
Hine, Roderick W., . . .	2,100 00	Dedham, . . .	Dedham.
Hobbs, W. C., . . .	1,800 00	Whitman, . . .	Whitman.
Holmes, Miss Helen, . . .	250 00	Kingston, . . .	Kingston.
Holmes, Stanley H., . . .	2,000 00	Grafton, . . .	Grafton, Upton.
Horne, Irving W., ² . . .	1,800 00	Braintree, . . .	Braintree.
Howard, Elmer F., . . .	1,600 00	Charlemont, . . .	Charlemont, Florida, Hawley, Monroe, Rowe.
Howard, Nelson G., . . .	2,100 00	Hingham, . . .	Cohasset, Hingham, Hull.
Hoyt, W. A., . . .	1,500 00	North Brookfield, .	Brookfield, North Brookfield.
Hunt, Charles L., . . .	1,800 00	Clinton, . . .	Clinton.
Hussey, Charles E., . . .	2,500 00	Wakefield, . . .	Reading, Wakefield.
Ingalls, Earl, . . .	1,500 00	Dalton, . . .	Cheshire, Dalton.
Irving, Arthur P., . . .	1,600 00	Ayer, . . .	Ayer, West Boylston.
Jacoby, Asher J., . . .	1,700 00	Middleborough, .	Middleborough,
Johnson, George E., . . .	1,600 00	Andover, . . .	Andover.
Jones, Frank O., . . .	1,500 00	East Bridgewater, .	East Bridgewater, West Bridgewater, Raynham.
Kelly, W. P., . . .	1,500 00	Hudson, . . .	Hudson.
Kingman, F. W., . . .	1,059 00	Hyaunis, . . .	Barnstable.
Knowlton, G. H., . . .	1,500 00	Chelmsford, . . .	Carlisle, Chelmsford, Dun- stable.

^{1, 2} See footnotes on page 168.

XXXII. *Alphabetical Table of Superintendents, etc.* — Continued.

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Knowlton, Junius C., . . .	\$1,800 00	Wamesit, . . .	Dracut, North Reading, Tewksbury, Tyngsborough.
Lamphier, George L., . . .	1,500 00	Becket, . . .	Becket, Chester, Middlefield, Washington.
Lewis, Alvan R., . . .	1,500 00	Hopkinton, . . .	Ashland, Hopkinton.
Lewis, Miss Mary A., Ass't,	1,000 00	Cambridge, . . .	Cambridge.
Lincoln, Miss Mary L., . . .	600 00	Rockport, . . .	Rockport.
Littlefield, Mrs. Jennie A., ¹	50 00	Boxborough, . . .	Boxborough.
Locke, D. B., . . .	1,600 00	Winchendon, . . .	Lunenburg, Winchendon.
Lull, Herbert W., . . .	2,500 00	Quincy, . . .	Quincy.
Lunt, W. P., . . .	1,200 00	Newburyport, . . .	Newburyport.
Lyman, C. S., . . .	1,600 00	Oxford, . . .	Dudley, Millbury, Oxford.
Maglathlin, Edward B., . . .	1,500 00	North Easton, . . .	Easton.
Martin, George H., . . .	3,780 00	Boston, . . .	Boston.
Mason, Miss Lizzie A., . . .	1,500 00	Orange, . . .	Erving, Orange, Wendell.
McKeen, Roscoe D., . . .	2,000 00	Haverhill, . . .	Haverhill.
McKenney, L. T., . . .	1,750 00	Bedford, . . .	Bedford, Billerica, Burlington, Lincoln.
McLachlin, E. H., . . .	1,500 00	South Hadley Falls,	Granby, South Hadley.
Melcher, S. A., ² . . .	600 00	Whitinsville, . . .	Northbridge.
Metcalf, Robert C., . . .	3,780 00	Boston, . . .	Boston.
Miller, W. D., . . .	1,500 00	Easthampton, . . .	Easthampton, Southampton, Westhampton.
Mitchell, Walter G., . . .	1,200 00	Williamstown, . . .	Williamstown.
Morse, A. H., ² . . .	1,600 00	Webster, . . .	Webster.
Morss, C. H., . . .	2,500 00	Medford, . . .	Medford.
Moulton, J. Sidney, ¹ . . .	100 00	Stow, . . .	Stow.
Nash, Louis P., . . .	2,500 00	Gardner, . . .	Gardner.
Nickerson, F. H., . . .	2,000 00	Melrose, . . .	Melrose.
Norcross, I. M., . . .	1,800 00	East Weymouth, . . .	Weymouth.
Palmer, Corwin F., . . .	1,500 00	Northborough, . . .	Berlin, Northborough, Shrewsbury, Southborough.
Parker, Walter S., . . .	3,780 00	Boston, . . .	Boston.
Parkinson, William D., . . .	2,300 00	Waltham, . . .	Waltham.
Parlin, Frank E., ¹ . . .	2,700 00	Natick, . . .	Natick.
Peaslee, Frank J., . . .	1,800 00	Revere, . . .	Revere.
Perkins, J. S., . . .	1,800 00	Canton, . . .	Canton.
Perkins, John W., . . .	2,500 00	Salem, . . .	Salem.
Perrin, Marshall L., ² . . .	1,500 00	Wellesley Hills, . . .	Wellesley.
Peterson, Ellis, . . .	3,780 00	Boston, . . .	Boston.
Pitman, J. Asbury, . . .	1,800 00	Marlborough, . . .	Marlborough.
Poland, Miss Mary L., . . .	1,550 00	175 Main Street, Springfield.	East Longmeadow, Hampden, Longmeadow, Ludlow, Wilbraham.

^{1, 2} See footnotes on page 168.

XXXII. *Alphabetical Table of Superintendents, etc.*—Continued.

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Potter, Jefferson R., . . .	-	Walpole, . . .	Walpole.
Pratt, Louis A., . . .	\$1,500 00	Williamsburg, . .	Conway, Sunderland, Whately, Williamsburg.
Putney, C. E., . . .	1,500 00	Baldwinsville, . .	Hubbardston, Phillipston, Roy- alston, Templeton.
Putney, Freeman, . . .	2,300 00	Gloucester, . . .	Gloucester.
Richardson, Herbert E., . .	1,500 00	Southwick, . . .	Agawam, Granville, South- wick.
Richardson, Myron W., . .	2,500 00	Milton, . . .	Milton.
Robinson, Albert, . . .	1,500 00	Warren, . . .	Wales, Warren.
Rogers, A. W., ² . . .	1,800 00	Stockbridge, . . .	Stockbridge.
Russell, B. B., . . .	2,700 00	Brockton, . . .	Brockton.
Safford, Adelbert L., . . .	1,800 00	Beverly, . . .	Beverly.
Sanderson, W. H., . . .	2,000 00	Bridgewater, . . .	Abington, Bridgewater.
Search, Preston W., . . .	3,500 00	Holyoke, . . .	Holyoke.
Sears, Joseph E., ¹ . . .	200 00	Dighton, . . .	Dighton.
Seaver, Edwin P., . . .	4,200 00	Boston, . . .	Boston.
Sherman, Elmer E., . . .	1,500 00	Hopedale, . . .	Bellingham, Hopedale, Men- don.
Sherman, Frank J., . . .	1,500 00	Monson, . . .	Brimfield, Monson.
Small, W. H., . . .	2,400 00	Chelsea, . . .	Chelsea.
Snell, Clifton A., . . .	1,550 00	Edgartown, . . .	Chilmark, Cottage City, Edgar- town, Tisbury, West Tisbury.
Southworth, Gordon A., . .	3,000 00	Somerville, . . .	Somerville.
Stanger, Asa O., . . .	1,400 00	Falmouth, . . .	Falmouth.
Stevens, Charles E., . . .	2,000 00	Stoneham, . . .	Saugus, Stoneham.
Stone, M. A., . . .	1,900 00	Watertown, . . .	Watertown.
Sutcliffe, Frank S., . . .	1,800 00	Arlington, . . .	Arlington.
Tenney, Fred C., . . .	1,750 00	Holliston, . . .	Holliston, Medway, Sherborn.
Thompson, A. C., ² . . .	1,800 00	Palmer, . . .	Palmer.
Thompson, Thomas E., . . .	1,900 00	Leominster, . . .	Leominster.
Thomson, Andrew J., . . .	1,550 00	Littleton, . . .	Acton, Littleton, Westford.
Tice, Burt J., . . .	1,500 00	Sandwich, . . .	Bourne, Mashpee, Sandwich.
Tiffany, Miss L. Belle, ¹ . .	70 00	Russell, . . .	Blandford.
Tiffany, J. O., . . .	1,200 00	Attleborough, . . .	Attleborough.
Tower, Alfred O., . . .	1,400 00	Pepperell, . . .	Pepperell.
Turner, Alfred, . . .	1,200 00	Turners Falls, . . .	Montague.
Tuttle, O. A., ² . . .	1,200 00	Nahant, . . .	Nahant.
Waldron, H. C., ² . . .	1,600 00	Westborough, . . .	Westborough.
Walradt, Henry M., . . .	2,000 00	Needham, . . .	Needham, Winchester.
Ward, W. Scott, . . .	1,600 00	Athol, . . .	Athol.
Warren, Jullus E., . . .	1,500 00	Northfield, . . .	Gill, Northfield, Warwick.
Wheeler, Ulysses G., . . .	1,800 00	West Springfield, . .	West Springfield.

^{1, 2} See footnotes on page 168.

XXXII. *Alphabetical Table of Superintendents, etc.* — Concluded.

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Whipple, D. Henry, . .	\$900 00	Millis, . . .	Millis.
Whitcomb, Arthur K., . .	3,000 00	Lowell, . . .	Lowell.
White, A. Everett, . . .	1,200 00	Methuen, . . .	Methuen.
White, J. Henry, ¹ . . .	1,000 00	Maynard, . . .	Maynard.
Whitney, Fairfield, . . .	1,500 00	Townsend, . . .	Ashby, Townsend.
Willard, E. L., . . .	1,500 00	Marshfield Hills, .	Duxbury, Marshfield, Scituate.

¹ Unites teaching with supervising.

TEACHERS' INSTITUTES.

Number and Attendance. — The following table gives various data about the institutes held in 1898 : —

XXXIII. *Table showing the Location of Institutes for 1898, the Date of holding, the Number of Towns represented and Persons attending, with the Number of Exercises conducted.*

WHERE HELD.	Date.	Number of Towns rep- resented.	Number of Members.	Number of Exercises.	By whom conducted.
Barnstable (Hyannis),	Nov. 4,	15	146	15	J. T. Prince.
Bridgewater, . . .	Oct. 10,	10	425	14	J. T. Prince.
Brockton,	Dec. 17,	9	146	12	J. T. Prince.
Charlemont, . . .	Oct. 29,	6	29	6	G. T. Fletcher.
Chester,	Nov. 18,	4	25	5	G. T. Fletcher.
Dalton,	Oct. 19,	8	55	8	G. T. Fletcher.
Duxbury (South), .	Oct. 14,	11	111	14	J. T. Prince.
Enfield,	Oct. 28,	6	37	7	G. T. Fletcher.
Fairhaven,	Nov. 2,	10	125	16	J. T. Prince.
Great Barrington, .	Oct. 18,	12	114	11	G. T. Fletcher.
Groton,	Oct. 27,	13	125	16	J. W. MacDonald.

XXXIII. *Table showing the Location of Institutes, etc. — Concluded.*

WHERE HELD.	Date.	Number of Towns rep- resented.	Number of Members.	Number of Exercises.	By whom conducted.
Holden, . . .	Oct. 6,	5	74	11	J. W. MacDonald.
Huntington, . . .	May 23,	8	37	5	G. T. Fletcher.
Hyde Park, . . .	Oct. 31,	4	131	16	J. T. Prince.
Marlborough, . . .	Oct. 25,	11	176	11	J. W. MacDonald.
Nantucket, . . .	Sept. 21,	1	20	6	J. T. Prince.
Northampton (Laurel Park). }	June 27 to July 2, }	{ 78	253	40	G. T. Fletcher.
Wilbraham (North),	Oct. 6,	5	45	5	G. T. Fletcher.
Oxford, . . .	Oct. 4,	9	158	11	J. W. MacDonald.
Rehoboth, . . .	Nov. 9,	5	57	10	J. T. Prince.
Salem, . . . }	July 5 to July 9, }	{ -	710	166	J. W. MacDonald.
Templeton (Baldwins- ville).	Oct. 7,	10	101	11	J. W. MacDonald.
Worcester, . . .	Dec. 17,	45	127	10	J. W. MacDonald.
Wrentham, . . .	Oct. 12,	10	201	15	J. T. Prince.
Totals, . . . 24	- -	295	3,428	441	

Comments on Table XXXIII. — The number of institutes was 24 the past year, as compared with 23 the year before. There was a smaller number of towns represented, however, and a smaller number of teachers, largely because special pains was taken to reach the rural teachers. This meant the selection of many places for institutes where large numbers could not possibly be assembled.

Towns represented. — When an institute is appointed in any town, invitations are sent to the teachers of towns in the vicinity. In this way a large part of the State is reached each year. The teachers in attendance came from towns and in numbers as given in the following table: —

XXXIV. *Table giving the Towns represented in the Institutes held in 1898, with the Number of Persons, mainly Teachers, attending from Each Town.*

TOWNS.	Teachers.	TOWNS.	Teachers.
Abington,	22	Dighton,	12
Acton,	2	Douglas,	10
Acushnet,	7	Dudley,	16
Adams,	1	Duxbury,	13
Alford,	2	East Bridgewater,	16
Amherst,	16	East Longmeadow,	14
Ashburnham,	18	Eastham,	4
Ashby,	6	Easthampton,	12
Ashfield,	3	Egremont,	4
Ashland,	8	Enfield,	7
Athol,	4	Fairhaven,	23
Attleborough,	48	Fall River,	22
Auburn,	10	Falmouth,	13
Ayer,	13	Florida,	3
Barnstable,	32	Foxborough,	17
Barre,	1	Franklin,	20
Becket,	17	Freetown,	7
Belchertown,	26	Gardner,	4
Berlin,	5	Gill,	1
Bernardston,	5	Granby,	1
Blandford,	4	Granville,	1
Bourne,	6	Great Barrington,	34
Boxborough,	5	Greenfield,	3
Boylston,	4	Greenwich,	2
Brewster,	6	Groton,	23
Bridgewater,	298	Hadley,	9
Brockton,	124	Halifax,	3
Brookfield,	1	Hamilton,	1
Buckland,	1	Hampden,	4
Canton,	18	Hanson,	2
Carver,	2	Hardwick,	10
Charlemont,	10	Harvard,	8
Charlton,	17	Harwich,	15
Chatham,	11	Hatfield,	8
Chelmsford,	3	Hawley,	7
Cheshire,	8	Heath,	9
Chester,	12	Hinsdale,	7
Chesterfield,	2	Holbrook,	3
Clarksburg,	4	Holden,	29
Cohasset,	12	Holliston,	11
Colrain,	5	Holyoke,	12
Conway,	1	Hopkinton,	15
Cummington,	4	Hubbardston,	10
Dalton,	24	Hudson,	20
Dana,	3	Huntington,	10
Dartmouth,	19	Hyde Park,	53
Dedham,	41	Kingston,	12
Deerfield,	4	Lakeville,	1
Dennis,	14	Lee,	16

XXXIV. *Table giving the Towns, etc. — Continued.*

TOWNS.	Teachers.	TOWNS.	Teachers.
Leicester,	20	Rehoboth,	16
Lenox,	15	Revere,	1
Leverett,	4	Richmond,	5
Leyden,	2	Rochester,	3
Littleton,	8	Rockland,	12
Longmeadow,	8	Rowe,	5
Ludlow,	16	Royalston,	8
Lunenburg,	2	Russell,	6
Mansfield,	20	Rutland,	7
Marion,	6	Sandisfield,	1
Marlborough,	85	Sandwich,	12
Marshfield,	14	Scituate,	13
Mashpee,	3	Seekonk,	10
Mattapoisett,	6	Sheffield,	12
Medfield,	7	Shelburne,	5
Middleborough,	37	Sherborn,	5
Middlefield,	10	Shirley,	8
Millbury,	21	Shutesbury,	1
Monroe,	3	Somerset,	7
Monson,	4	South Hadley,	2
Montague,	2	Southampton,	4
Monterey,	5	Southborough,	9
Montgomery,	4	Southbridge,	30
Mount Washington,	2	Southwick,	2
Nantucket,	20	Springfield,	2
New Marlborough,	9	Sterling,	11
New Salem,	5	Stockbridge,	17
Norfolk,	5	Stoughton,	1
North Adams,	3	Sudbury,	6
North Attleborough,	36	Sunderland,	2
Northampton,	20	Sutton,	12
Northborough,	8	Swansea,	12
Northfield,	4	Templeton,	24
Norton,	9	Townsend,	10
Norwell,	9	Truro,	4
Norwood,	19	Walpole,	20
Orange,	2	Wareham,	13
Orleans,	6	Warren,	2
Oxford,	27	Washington,	4
Palmer,	6	Watertown,	1
Pelham,	2	Webster,	17
Pembroke,	1	Wellfleet,	3
Pepperell,	22	Wendell,	2
Peru,	3	West Boylston,	11
Phillipston,	4	West Bridgewater,	11
Plainfield,	3	West Springfield,	2
Plymouth,	33	West Stockbridge,	6
Plympton,	1	Westborough,	1
Prescott,	4	Westfield,	7
Provincetown,	8	Westford,	16
Quincy,	1	Westhampton,	4
Randolph,	2	Westminster,	13
Raynham,	8	Westport,	19

XXXIV. *Table giving the Towns, etc. — Concluded.*

TOWNS.	Teachers.	TOWNS.	Teachers.
Whitman,	30	Wrentham,	19
Wilbraham,	14	Yarmouth,	10
Williamsburg,	4	Salem Institute,	710
Williamstown,	1	Worcester Institute,	127
Winchendon,	17		
Windsor,	6	Total (215 towns),	3,428
Worthington,	3		

Topics presented at Institutes. — The following is a list of topics presented at the day meetings, with the several persons employed in giving the instruction : —

A Model Business Course, — C. B. Ellis.

Animal Study, — Arthur C. Boyden, Sarah E. Brassill.

Arithmetical Analysis, — George A. Walton.

Arithmetic, — Gilman C. Fisher, G. T. Fletcher, James W. MacDonald, John T. Prince, Elmer E. Sherman, George A. Walton.

A Study of Emerson's Poetry, — James W. MacDonald.

Chemistry, — Delia M. Stickney.

Child Study, — Will S. Monroe, Frank F. Murdock.

Conditions of Success in School Management, — G. T. Fletcher.

Conduct of Recitation, — Charles S. Chapin.

Design, — Henry T. Bailey.

Drawing, — Mary A. Pearson, Elizabeth H. Perry, L. Walter Sargent, Charles F. Whitney.

Dulness and Prevention, — Frank F. Murdock.

Educative Desk Work, — Etta L. Chapman, Mary I. Lovejoy.

Elements of Geography, — Philip Emerson, Burt J. Tice.

English, — Emily C. Fisher, Andrew J. George, John T. Prince.

English Composition, — John T. Prince.

English and Literature, — James W. MacDonald.

Evolution, Expression and Solution of Fractions, — G. T. Fletcher.

French, — Mary Stone Bruce, W. B. Snow.

Geography, — George I. Aldrich, Philip Emerson, Lillian A. Hicks, Frederic Holmes, Frank F. Murdock, L. P. Nash, Charles P. Sinnott, Burt J. Tice.

Geologic Basis of Geography, — T. W. Harris.

Geometry, — James W. MacDonald, Ellen Thompson.

Gymnastics, — Eva A. Hickox, Helen E. Brooks.

- Grammar, — G. T. Fletcher, Robert C. Metcalf, John T. Prince.
Grammar School Physics, — J. B. Gifford.
Health Lessons, — Mrs. Ella B. Hallock.
Higher Life in School, — Frank F. Murdock.
History, — George I. Aldrich, Arthur C. Boyden, Wilbur F. Gordy,
Emma B. MacLeod, John T. Prince, Charles C. Ramsay, Anna
Boynton Thompson.
Language, — Laura Fisher, Robert C. Metcalf, W. H. Sanderson.
Language and Grammar, — Robert C. Metcalf, John T. Prince,
W. H. Sanderson.
Language and Reading, — Elmer E. Sherman.
Language and Spelling, — G. T. Fletcher.
Latin, — William C. Collar, James W. MacDonald.
Lessons on the Human Body, — Mrs. Ella B. Hallock.
Literature, — Alice C. Jones, Anna Boynton Thompson, Ellen
Thompson.
Literature and Reading, — George I. Aldrich, James W. Mac-
Donald.
Music, — C. S. Cornell, Edmund F. Sawyer.
Natural Science, — Charles B. Wilson.
Nature Study, — Sarah E. Brassill, Bertha M. Brown, Susan J.
Hart, L. Walter Sargent.
Nature Study and Geography, — John T. Prince.
Number Work, — Amy L. Boyden, Maria Fuller, George A.
Walton.
Numbers and Relations, — Annette M. Bartlett.
Penmanship, — J. C. Moody.
Physical Culture, — Mrs. Ella B. Hallock.
Physical Science, — Lyman C. Newell.
Physics, — William D. Jackson, J. C. Packard.
Physiology, — Frank Drew.
Physiology, Hygiene and Temperance, — Mrs. Ella B. Hallock.
Primary Class, — Mary I. Lovejoy.
Primary School Organization, — Sarah L. Arnold.
Principles of Arithmetic, — Adelbert L. Safford.
Reading, — George I. Aldrich, G. T. Fletcher, Maria Fuller, Isa-
bella S. Horne, Catherine W. Parker.
Reading and Language, — Sarah L. Arnold.
Reading and Literature, — Flora E. Kendall, Mary I. Lovejoy.
Reading and Phonetics, with class exercise, — Marion I. Noyes.
Singing in the Ungraded Schools, — Clara C. Prince.
Some Axioms of Good Teaching, — Charles S. Chapin.
Some Primary Methods, — G. T. Fletcher.

Stories for Children, — Lucy Wheelock.

Story Telling, — Mrs. Elizabeth Y. Rutan.

The Art of Questioning, — James W. MacDonald.

The Desirable and the Needful in a Teacher, — James W. MacDonald.

The Development Method, — John T. Prince.

The Elements of True Teaching, — Albert G. Boyden.

The Formation of Good Habits as an Aim in Teaching, — James W. MacDonald.

The Gist of Good Teaching, — John Bascom.

The Human Body, — Mrs. Ella B. Hallock.

The Kindergarten Bridge, — Lucy Wheelock.

The Mutual Relations of Educational Forces, — Samuel T. Dutton.

The Relations of Teacher and Pupils, — George A. Walton.

The Unseen Force in Character Building, — George H. Martin.

Vertical Writing, — A. F. Newlands.

Voice Culture, — Mary Adams Currier.

Evening Addresses. — Evening addresses were given by A. D. Mayo, on “What is Education?” L. Walter Sargent, on “The Value of Art in Every-day Life;” Frank A. Hill, on “Teachers for the Times;” and by the agents of the Board, on “Conditions Necessary for the Maintenance of Good Schools.”

General Addresses. — In addition to the evening addresses, day addresses were given as follows: “Apperception,” by Thomas M. Balliet; “Literature for Children,” by Walter P. Beckwith; “Looking Beyond,” by George H. Martin; “Niagara Falls,” with the lantern, by Frank A. Hill; “The Pedagogical Problem,” by Fred Gowing; “The Relation of Modern Education to the Problems of Philanthropy,” by Mrs. Alice Freeman Palmer; also a course of lectures on pedagogy, by Arnold Tompkins.

Discussion of Subjects. — At the Worcester Institute discussions took place in connection with the following subjects: physics and chemistry in the high school; present methods and tendencies in teaching elementary French; reasoning method in geometry; sight reading and good translation of Latin.

Laurel Park Institute. — In addition to the regular exercises at the Laurel Park Institute, George A. Walton held confer-

ences with school committees and superintendents, lessons were given by J. W. MacDonald in geometry and English literature, and excursions were conducted by T. W. Harris to study land formations for the benefit of teachers of geography.

Long Summer Institutes. — There is an earnest desire on the part of teachers for summer institutes to last two weeks, instead of one. A petition to that effect came two or three years ago from 202 teachers who had been in attendance upon the Laurel Park Institute. The second session of the Salem Summer Institute proved as profitable and enthusiastic as the first, and the general desire is that that also shall be extended to two weeks.

If the amount of institute work prescribed for each day is moderate and limited to the morning hours, the afternoon being free for social and vacation purposes, the tax upon teachers who need rest and change from the arduous labors of the year is not thought to be serious. It is impossible, however, to conduct either institute satisfactorily for a week with \$350, the maximum sum now allowed by law for the purpose, to say nothing of the extension of the time to two weeks. At the Salem Institute the teachers have paid half or more than half the expense themselves. The entire appropriation for institutes is now only \$2,000. The average cost of the 24 held during the year, including the long summer institutes, was only \$83.33. Forty and fifty years ago the annual appropriation for a series of years was over \$4,000; twenty to thirty years ago, for a series of years, \$3,000. The old institutes were a week long; the Board of Education employed but a single agent, occasionally two; nearly all the lecturers, therefore, were paid; among them were eminent teachers and scholars like Russell, Mason, Guyot and Agassiz. Then came the shortening of the institutes and an increase in the force of agents, so that less money was needed to conduct the work. Now that there is a demand for at least two long summer institutes, — a demand for which we should be thankful, since it measures the desire of the teachers to perfect themselves for their work, — it would seem wise to meet it. It is recommended, therefore, that the Legislature allow a sufficient sum, in addition to that now authorized by law, to permit an exten-

sion of the Laurel Park and Salem institutes from one week to two. If the usual annual appropriation of \$2,000 for institutes is made, the sum needed in addition would not exceed \$500 for each.

Prospectus of the Salem Institute of 1898. — In order to give a complete view of the plan, work and attractions of a long summer institute, as well as to preserve the record for reference hereafter when the educational history of the times will be of more interest than at present, the prospectus of the last Salem Institute is here given in full. It should be noticed, in particular, (1) that the great and beautiful Salem normal school building, with its rich equipment and attractive surroundings, is admirably adapted for the purpose; (2) that the teachers thus far have borne the larger part of the expense; and (3) that the free afternoons in historic Salem and vicinity give abundant opportunities for enjoyable recreation of a kind to refresh and strengthen teachers for their work.

A TEACHERS' SUMMER INSTITUTE, UNDER THE JOINT MANAGEMENT OF THE STATE BOARD OF EDUCATION AND THE NORTH SHORE SUMMER SCHOOL ASSOCIATION, NEW NORMAL SCHOOL BUILDING, SALEM, MASS., FROM TUESDAY TO SATURDAY, JULY 5 TO 9, 1898.

A teachers' institute will be held in the new normal school building, Salem, Mass., beginning Tuesday morning, July 5, 1898, and closing the following Saturday noon.

It will be under the joint management of the Massachusetts State Board of Education and the North Shore Summer School Association, and that it may be in every way a complete success, the coöperation of school committees and superintendents is earnestly solicited.

As a place for a summer institute Salem has unusual advantages and attractions.

First, the dozen or more steam and electric roads converging there, which will make the meetings easily accessible from the homes of a large number of teachers living in the surrounding cities and towns.

Second, the new normal school building, which will furnish superior facilities for the work of the institute.

Third, the natural attractions of a long line of seacoast, stretching from the extremity of Cape Ann to Nahant, and including such places as Pigeon Cove, Annisquam, Magnolia, Beverly Farms, Salem Willows, Marblehead Neck, Swampscott and Nahant beaches and Bass Point, to which may be added Chebacco Pond and Wenham Lake. All of these places are easily

reached, most of them by a delightful electric car ride at a moderate expense.

Fourth, the many places of historic and literary interest there and in the immediate vicinity, of which space permits us to mention only a few:—

The Roger Williams House, the oldest house in Salem, more familiarly known as the "Old Witch House;" the old First Meeting House, built in 1634, in which Mr. Williams preached just before his flight into Rhode Island; Gallows Hill, where nineteen witches were executed in 1692; Hawthorne's birthplace, and also the "Dr. Grimshaw House," the Custom House and the Turner House, all made famous by his life or writings; also the birthplaces of W. H. Prescott, the historian, and of the sculptor, W. W. Story. To these may be added the Essex Institute, with its valuable collection of relics, portraits, manuscripts, etc., and the Peabody Academy of Natural Sciences, where those interested in the natural history of eastern Massachusetts, or in the customs and ways of life of the peoples of Asia and the islands of the Pacific, will find rich store of material for the study.

Peabody is the birthplace of the great philanthropist, George Peabody, and here are the institute building and the collection which he gave to the town. Marblehead is full of places of interest; all will want to see the Old Church, Abbott Hall, the Old Town House, the Old Burial Hill, Agnes Surriage's Well and Fort Sewall. Last, but not least, there are the innumerable spots in the surrounding towns associated with the lives and writings of the two Essex County poets, J. G. Whittier and Lucy Larcom.

To give those attending the meetings of the institute time to profit by the opportunities for recreation, sight-seeing, special study or rest, the sessions will begin each morning at 8.30 A.M. and close at 1 P.M. This plan of work gave so complete satisfaction last year that the management feel justified in continuing it.

Each session will be divided into five periods (see program below), the first of which will be devoted to a course of lectures on pedagogy, by Prof. Arnold Tompkins, of the department of pedagogy of the University of Illinois, whose inspiring and suggestive addresses during the session of 1897 are remembered with great pleasure by all who heard them.

Each session will end with addresses by prominent educators too well known to need any special mention.

The three intervening periods, beginning at 9.35 A.M., 10.25 A.M. and 11.25 A.M., respectively, will be devoted to special subjects of instruction, for admission to which tickets will be required. The number of tickets for each course will be limited to the capacity of the room in which the exercise is given,—about one hundred and fifty. The first and last periods are open to all ticket holders.

To defray the expenses of so varied and attractive a program as the one we are offering, it is necessary to supplement the amount of

money available from the State by charging a small membership and tuition fee, which has been fixed for this year at \$1.50. We feel sure that all teachers would prefer to pay this amount rather than have the standard of the institute lowered.

Mr. Gardner P. Balch, with a corps of assistants, will be ready on the opening morning (Tuesday, July 5), after 8 A.M., to register names, receive the fees and issue the tickets. It would greatly expedite his work if teachers would have their electives made out in advance, with their names and addresses. This can easily be done from the program given below. Each teacher is entitled to three tickets. It would assist doorkeepers and prevent delays in changing classes if these tickets are carried in some conspicuous way.

Teachers wishing to avoid the delay likely to occur on the first morning can procure their tickets in advance by sending application, with amount of fee, to J. W. MacDonald, Stoneham, Mass., Gardner P. Balch, Swampscott, Mass., J. B. Gifford, Peabody, Mass., John W. Perkins Salem, Mass., A. L. Safford, Beverly, Mass., or O. B. Bruce, Lynn, Mass. Teachers doing this will be the more likely to get the courses they select, as the number of tickets to each course is limited.

Teachers from a distance who may want to procure lodging and board in the vicinity of the institute can find good accommodation at Salem, Salem Willows, Beverly, Marblehead, Peabody, Swampscott, Lynn or Danvers, at \$3.50 to \$5 for the week; lodging only, \$1.50 to \$2. For assistance in this particular, address: secretary of the school committee, Salem; Frank Broughton, secretary of the Y. M. C. A., Marblehead; Frank E. Hobart, principal of the Wallace School, Peabody; A. L. Safford, superintendent of schools, Beverly; Gardner P. Balch, superintendent of schools, Swampscott; O. B. Bruce, superintendent of schools, Lynn.

Fare by electric to Marblehead, Swampscott, Danvers and any part of Salem, five cents; to Lynn, Peabody and Beverly, ten cents.

Mrs. C. H. Brooks, caterer, of Peabody, will have a restaurant in the normal school building during the session, where lunches and dinners can be procured at economical prices. To improve the freedom of the afternoons for visiting places of interest, etc., teachers will find it to their advantage to arrange for only breakfasts and suppers at the places where they lodge, and to get their dinners with Mrs. Brooks.

DAILY PROGRAM.

A.M.

8.30. Opening Exercises.

8.35. Lectures on Pedagogy, main hall; Prof. Arnold Tompkins, Department of Pedagogy, University of Illinois.

PRIMARY SECTION.

9.35. Primary School Organization and Management, main hall; Miss Sarah L. Arnold, Supervisor of Schools, Boston.

NOTE. — Talks on programs, discipline, desk-work, etc.

Drawing, art room, upper floor; Mr. Charles F. Whitney, Instructor of Drawing, Salem Normal School and Beverly.

NOTE. — For teachers desiring practical work in drawing, the room will be open from 9.35 A.M. to 12.10 P.M., and such personal aid will be furnished as circumstances permit.

Geography, room 5, lower floor; Mr. Philip Emerson, Principal of the Cobbet School, Lynn, and Chairman of Science Section, New England Conference of Educational Workers.

NOTE. — Treatment of the following topics will be practical, and based on the leader's experience with primary grades: Field Excursions; Purpose and Method. School District and Town. Physical and Human Sides. Study of Maps. Units of World Relief and Life. Training to study Pictures and Books. Our State and Country. Early Views of the World.

See also note under Geography, Grammar Section.

10.25. Animal Study, room 3, lower floor; Miss Sarah E. Brassill, Supervisor of Nature Study, Cambridge.

Reading and Language, main hall; Miss Sarah L. Arnold.

Voice Culture, room 1, lower floor; Miss Mary Adams Currier, formerly of Wellesley College.

NOTE. — To show how the harsh American school voice, so common to both teachers and pupils, may be corrected or avoided.

11.10. Intermission.

11.25. Animal Study, room 3, lower floor; Miss Sarah E. Brassill.

Physiology and Hygiene, room 2, lower floor; Mrs. Ella B. Hallock, Southold, N. Y.

NOTE. — Treated with special reference to temperance and moral instruction, and the cultivation of good habits.

Vertical Writing, room 41, middle floor; Mr. A. F. Newlands, Supervisor of Writing, Kingston, Ontario.

Gymnastics, gymnasium; Miss Helen E. Brooks, Rhode Island College of Agriculture and Mechanic Arts.

GRAMMAR SECTION.

A.M.

- 9.35. Animal Study, room 4, lower floor; Mr. Arthur C. Boyden, Vice-Principal of Bridgewater Normal School.

History, room 2, lower floor; Mr. Wilbur F. Gordy, Principal of North School, Hartford, Conn.

Vertical Writing, room 41, middle floor; Mr. A. F. Newlands.

- 10.25. Animal Study, room 4, lower floor; Mr. A. C. Boyden.

Physiology and Hygiene, room 2, lower floor; Mrs. Ella B. Hallock.

See note under Physiology and Hygiene, Primary Section.

Language and Spelling, room 5, lower floor; Mr. G. T. Fletcher, Agent of the State Board of Education.

Principles of Arithmetic, room 41, middle floor; Mr. A. L. Safford, Superintendent of Schools, Beverly.

Gymnastics, gymnasium; Miss Helen E. Brooks.

- 11.10. Intermission.

- 11.25. Drawing, art room, upper floor; Mr. Charles F. Whitney.

See note under Drawing, Primary Section.

Geography, room 5, lower floor; Mr. Philip Emerson.

The topics considered in the five daily periods will be: New England Surface Forms as Types (upland, mountain, valley; glacial remains, coastal forms; facts, causes, effects). World Views of Climate (temperature, winds, rainfall; causes, effects on vegetation and occupations). Study of a Continent (preparation; order of treatment; methods of teaching). Study of a Nation or Race (a course of study in geography; relations of geography and history; Spanish race as illustration). Commercial Geography (its history; productions, their distribution and exchange; cities, and causes of their location and growth).

Afternoon field excursions will be conducted in the vicinity of Salem, the electric car lines being used where possible; surface and coast forms will be studied as to their formation and their influence on the distribution of population and occupations. Such features will be considered as would be taken up in class excursions from the different grades of the elementary schools.

Friday afternoon, instead of a field excursion there will be a lecture on geography, illustrated by stereopticon views, to which all members of the institute are invited.

Grammar School Physics, physical laboratory, upper floor; Mr. J. B. Gifford, Superintendent of Schools, Peabody.

NOTE.—This course will consist of laboratory work in quantitative exercises. Only a limited number can be accommodated.

Voice Culture, room 1, lower floor; Miss Mary Adams Currier.

See note under Voice Culture, Primary Section.

HIGH SCHOOL SECTION.

A.M.

- 9.35. History, room 35, middle floor; Miss Anna Boynton Thompson, A. B., Master of History and Greek, Thayer Academy, South Braintree.

NOTE. — The object of this course is to show a method of treating a chain of historical development. The leading thought will be "The Origin and Growth of Popular Representative Institutions." Members will please read and bring with them the following books: Germany — Cæsar's Gallic War and Tacitus's Germany. England — one Constitutional History; as, for instance, David Watson Rannie's (Chas. Scribner), very small; or Cyril Ransome's (Rivington's), small; or Taswell-Langmead's (Houghton & Mifflin), larger. United States — Dr. Edward Channing's Student's History of the United States, and the following Old South Leaflets: Magna Charta, Bill of Rights, Pilgrim Compact of 1620, Declaration of Independence, Articles of Confederation, and Constitution.

Latin, room 37, middle floor; Mr. J. W. MacDonald, Agent of the State Board of Education.

NOTE. — The first year's work, and the Defence of Archias to illustrate advanced work.

- 10.25. French, room 35, middle floor; Miss Mary Stone Bruce, Newton High School.

NOTE. — Familiar talks upon aims and methods in the teaching of French as applied to beginning classes; grammar work, history, and intermediate and advanced reading (Daudet's *Le Siege de Berlin* and Racine's *Esther* taken as examples). How to create an atmosphere and inspire enthusiasm in the study.

English Literature, room 37, middle floor; Mr. J. W. MacDonald.

NOTE. — A study of the following, selected from the college requirements of 1899: The Ancient Mariner, Macbeth and Carlyle's Essay on Burns. Besides these selections, a copy of Burns's Poems should be brought.

- 11.10. Intermission.

- 11.25. Chemistry, chemical lecture room, upper floor; Miss Delia M. Stickney, Cambridge English High School.

NOTE. — The object of this course is to suggest certain policies of instruction that have stood the test of careful trials, and, in particular, the best ways of securing abundant practice, with appropriate correlation, on the part of the pupils without undue burdening of the teacher.

A study of Emerson's Poetry, room 37, middle floor; Mr. J. W. MacDonald.

NOTE. — All proposing to take this course should bring a copy of Emerson's Poems, the 12mo. edition of Selected Poems preferred.

Voice Culture (see Grammar Section, same hour).

NOTE. — Those taking French and chemistry can arrange with the instructors for additional time during the next period, beginning at 12.15 P.M.

P.M.

12.15. General Addresses, main hall:—

Tuesday, Literature for Children; Dr. W. P. Beckwith, Principal of the Salem Normal School.

Wednesday, Niagara Falls, with the lantern; Frank A. Hill, Litt.D. The slides will be such as are used in the New York State plan of popularizing instruction in geography. The purpose of the address is to explain and illustrate this plan, to suggest one or two improvements of it and to enforce the value of the lantern in ordinary school use.

Thursday, Looking Beyond; Mr. Geo. H. Martin, Supervisor of Schools, Boston.

Friday, The Relation of Modern Education to the Problems of Philanthropy; Mrs. Alice Freeman Palmer, Cambridge.

Saturday, The Pedagogical Problem; Hon. Fred Gowing, Superintendent of Public Instruction, New Hampshire.

FRANK A. HILL,

Secretary of the State Board of Education.

J. B. GIFFORD,

President of the Summer School Association.

J. W. MACDONALD,

Agent of the State Board of Education.

THE NORMAL SCHOOLS.

Dates of Opening.—The four normal schools authorized by the Legislature in 1894 have all been opened. The following list gives all the normal schools of the State in the order of their opening:—

NORMAL SCHOOLS.	First Opened.	Present Principal.
Framingham, . . .	July 3, 1839, at Lexington,	Henry Whittemore.
Westfield, . . .	Sept. 4, 1839, at Barre, .	Charles S. Chapin.
Bridgewater, . . .	Sept. 9, 1840, . . .	Albert G. Boyden.
Salem,	Sept. 14, 1854, . . .	Walter P. Beckwith.
Normal Art, Boston, .	Nov. 11, 1873, . . .	George H. Bartlett.
Worcester,	Sept. 15, 1874, . . .	E Harlow Russell.
Fitchburg,	Sept. 11, 1895, . . .	John G. Thompson.
North Adams, . . .	Feb. 1, 1897, . . .	Frank F. Murdock.
Barnstable (Hyannis),	Sept. 9, 1897, . . .	W. A. Baldwin.
Lowell,	Oct. 4, 1897, . . .	Frank F. Coburn.

Full accounts of the six earlier schools may be found in the fortieth and fifty-third annual reports of the Board.

XXXV. Table showing Admissions and Attendance for 1898, with other Normal School Data.

NORMAL SCHOOLS.	TEACHERS IN NORMAL SCHOOLS.		TEACHERS IN MODEL AND PRACTICE SCHOOLS.		Examined for Admission in 1898.	ADMITTED TO —		NUMBER OF DIFFERENT STUDENTS FOR 1897-98.			ATTENDANCE NOV. 1, 1898.			Number of Graduates in 1898.	Different Students from the Beginning.	Graduates from the Beginning.
	Men.	Women.	Men.	Women.		Enter- ing Class.	Higher or Special Classes.	Men.	Women.	Total.	Men.	Women.	Total.			
Barnstable (Hyannis),	3	3	1	5	24	22	3	9	31	40	9	45	54	-	64	-
Bridgewater,	7	7	-	12	179	120	21	49	225	274	41	236	277	91	4,623	2,881
Fitchburg,	4	5	1	17	86	28	17	2	111	113	3	92	95	53	201	67
Framlingham,	3	11	-	5	93	82	2	-	104	104	-	152	152	24	3,429	2,071
Lowell,	4	7	1	17	83	45	-	3	135	138	6	131	137	4	183	4
North Adams,	4	4	-	17	40	33	-	5	72	77	4	93	97	-	112	-
Salem,	4	8	-	5	119	97	6	-	140	140	2	174	176	48	4,395	2,353
Westfield,	3	5	-	6	72	54	8	1	104	105	-	112	112	36	4,162	1,525
Worcester,	4	8	-	3	104	81	2	11	179	190	5	183	188	53	1,517	807
Normal Art (Boston),	8	4	-	-	102	122	-	53	216	269	49	235	284	32	2,788	960
Totals,	44	62	3	87	852	684	59	133	1,317	1,450	119	1,463	1,572	341	21,474	10,668

Growth of the Normal Schools.—It was at the June and September examinations in 1896 that candidates for admission to the State normal schools were required to be graduates of high schools, or to have received an equivalent training, and to pass an examination in high school subjects. For the last ten years of the old policy the average number of admissions, excluding those to the Normal Art School, was 420; for the three years of the new policy, 567, — a gain of 35 per cent. But this statement does not bring out the full measure of the gain, since the first year of the new policy showed a loss of 31 in the number of admissions, as compared with the average for the preceding ten years, — a loss that was the natural and not unexpected result of so marked a raising of the admission standard. It was not until the second and third years were reached that the tide turned. The average number of admissions for these two years, the Normal Art School still excluded, was 656, — a gain of 56 per cent. over the last ten years of the old policy and of 69 per cent. over the first year of the new. The foregoing numbers and percentages are based on admissions to the entering or junior classes only. If admissions to the Normal Art School and to the higher classes of all the schools are included, the gain in numbers becomes still more striking, although just here data for the last ten years of the old policy are not sufficiently complete to warrant a comparison between the past and the present.

EXAMINATIONS.	Number examined.	Admitted to Entering Classes, Nor- mal Art School excluded.	Admitted to All Classes, Normal Art School included.	Membership of All the Schools December 1.
June and September, 1896, .	—	389	456	1,123*
June and September, 1897, .	843	691	780	1,388
June and September, 1898, .	852	621	743	1,572

* Whole number of different pupils for the year.

The number in actual attendance Dec. 1, 1898, is 1,572, which is 112 more than the largest number of different pupils in attendance during a full year in the history of the schools, and 342 more than the average number of different pupils in

attendance during the last ten years of the old policy. For additional statistics reference should be made to Table XXXV. Mere numbers, of course, are not conclusive as to the quality of work done in the normal schools, but they may be trusted to show (1) that the policy of increasing the number of normal schools has thus far proved successful beyond the most sanguine expectations of its advocates, and (2) that the placing of the normal schools above the high schools and in line with the colleges has received overwhelming endorsement.

Normal School Facts and Questions considered in Recent Reports. — The secretary in his last four reports has considered many aspects of the normal school situation and made some suggestions looking towards normal school welfare. If in any report he refrains from repeating these suggestions, it may be assumed that in some cases they have received such attention that there is no further occasion for making them. As to the remaining cases, his silence should not be interpreted as a cooling of his mind towards the positions he has heretofore taken. The following titles will sufficiently indicate the attention given to normal school themes, and furnish a guide to the suggestions made in connection with them. The figures give the volume and page to which reference is made.

1. The relations of local training schools to the normal schools, 58, 128-130; 60, 128-130.
2. The relations of high schools to normal schools, 59, 137.
3. The new normal schools, 58, 172, 173; 59, 141-143.
4. What the normal school aims to do for its students, — a circular letter to one who wishes to become a teacher, 60, 513-519.
5. Causes of the declining numbers in the normal schools, 60, 119.
6. Normal training for high school teachers, 60, 123, 124.
7. Normal training for high manual training school teachers, 60, 124.
8. Model and practice schools, — their number, character and adaptation to the needs of the normal schools, 60, 124-128.
9. Unpromising candidates for teaching positions, 60, 130.
10. Increased State aid to needy students, sabbatical years and a summer normal school, 60, 131.
11. Formalism, 60, 132.
12. Superannuated teachers in normal schools, 60, 133.

13. The great work done by the normal schools, 60, 133, 134; 61, 196, 197.
14. Inspection of normal schools and supervision of the State examination and certification of teachers, 60, 134, 135.
15. Gain in normal school attendance, 61, 181-183.
16. Growth in practice school facilities, 61, 183, 184, 188.
17. The admission examinations, 60, 120-122; 61, 185, 186.
18. What the State has a right to expect from its normal schools, 61, 186.
19. Candidates for admission self-selected, 61, 187.
20. The meagre rewards of teaching, 61, 188.
21. No teaching at its best without the annealing of experience, 61, 188.
22. What the normal schools may properly expect from the State, 61, 189.
23. Good teachers for the normal schools, 61, 190.
24. Due recognition of teaching as a profession, 61, 190.
25. Mistakes or dangers to which normal schools are exposed, 61, 191.
26. Adherence to academic methods and work, 61, 191-193.
27. Vitalizing the psychology taught, 61, 193-195.
28. Meeting the critical needs of the coming teacher, 61, 195.
29. Child study, 61, 195.

Reference should also be made to valuable discussions of normal school themes to be found in recent reports both of the Board as prepared by A. P. Stone, Kate Gannett Wells, Milton B. Whitney and George I. Aldrich, and of the various boards of visitors; also in the reports of the agents of the Board.

Normal School Work of the Board of Education.—The past four years have brought an unusual amount of normal school work to the Board of Education. Five new normal school buildings have been erected at Salem, Fitchburg, North Adams, Lowell and Hyannis. The Worcester normal school building has been thoroughly renovated and a beautiful gymnasium added. The building for model and practice schools at Bridgewater has been practically doubled in capacity, a fine dormitory erected and the whole plant greatly improved. A separate building for the heating apparatus of Framingham has been constructed. The extension of the building for the Normal Art School is substantially finished.

Indeed, every normal school except the Westfield, whose need of more room for model schools has been kept in abeyance, has been the centre of more or less extensive building operations during these four years. These operations have involved an expenditure of not far from a million dollars. The great expansion of the normal school system, the supervision of building plans and of the expenditures for them, the selection of seven new principals and of scores of teachers, the consideration of plans for extending the model and practice school facilities of the schools, — all this has put upon the Board of Education, its ten boards of visitors and its various committees an amount of work from which an unpaid board might fairly shrink, — work that could not have been done with anything like the effectiveness actually attained had there not been a careful division of it from the outset. The public may easily fail to appreciate the extent and the value of the service it often receives from the men and women of its unsalaried commissions.

Not only have the past four years been years of unprecedented activity in all that relates to the material side of normal school plans, but on the educational side there has been a corresponding life. There can be no doubt that the placing of the normal schools distinctly above the high schools has given them a dignity, an attractiveness and an influence over the high schools to which they had not previously attained. The increased convenience to the public of normal school facilities, the prominence of normal school themes in recent legislative and educational discussions, the steadily growing demand for trained teachers, the raising of the standard of admission, the infusion of new blood into the teaching force, — these have all had their share in bringing about the unexpectedly large increase in the numbers applying for admission.

Extension of the Course of Study in Normal Schools. — The length of the regular course of study is two years. In Bridgewater a four years' course exists, made up of the studies of the two years' course and certain subjects that require two years additional. There is also an advanced course of two years, designed primarily for college graduates and promising graduates from the regular two years' course. The Board of Edu-

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cation recently ordered that no new classes for a four years' course should be organized at any of the normal schools, Bridge-water excepted, without special authority from the Board. The object is to discourage the formation of expensive small classes, numbering, as they sometimes do, only two, three or four pupils. The Board, however, has recently given permission to the normal schools to continue the instruction of certain pupils of the two years' course into and even through a third year. These pupils are usually of two classes, — one including pupils not ready to graduate at the end of two years, but not without promise of becoming ready after further study; and the other including either graduates of the two years' course or those ready to graduate who desire to make further preparation. A part of this third year may be given up to more extended practice, either in the practice schools connected with the normal schools or in the public schools of some neighboring town. Any town that has a good building of four or more school-rooms, with a capable principal, might easily arrange with a normal school in its vicinity to employ normal students from its third-year class for a series of months. The town might do this with great profit both to these students and its own schools. Such students should be paid a small sum to cover their board and expenses. They want experience, and are willing to make sacrifices to gain it. If their work does not promise well, they should be sent back to the normal school. If they take hold right, they may easily do as well as the average regular teachers of the town. If they do not bring experience to the school, they will at least bring to it freshness, earnestness and enthusiasm. If the principal of the school is selected with special reference to her fitness to supervise such apprentices, if the size of the school justifies the appointment of one or two regular teachers specially qualified to work with such a principal, a town might do better by a school conducted in this way than with the other schools of its system. It might do better at the same or even at less expense. The expense might be less, even though it might cost more to secure the sort of regular teachers needed for such work. Here is a kind of coöperation — already tested successfully in one case — that is earnestly commended to towns in the vicinity of normal schools.

Division of the Admission Examinations. — The Board of Education has recently amended its rules so as to permit applicants for admission to divide their examinations, taking some subjects one year and the rest the next. This will relieve the high schools and the applicants from thinking of too many subjects at one time. Just what rules should be made about the division cannot now be stated. It seems important that students should not be admitted to preliminary examinations without some certificate from their teachers as to their fitness to do so, that the language papers should always be taken among the finals, and that the division of subjects between the two examinations should not break up the groups in which they have been arranged for examination purposes. Moreover, if candidates that are clearly without promise for teaching present themselves at preliminary examinations, it ought to be possible, for their own sakes, to rule them out at that time.

Care in sifting Candidates. — The larger the number pressing to enter the normal school, the greater the necessity for care in sifting candidates for admission. It is not the function of the normal school primarily to increase one's chances for earning a livelihood at teaching; it is rather to serve the schools. And the admission or rejection of a candidate should turn, not on the effect of such action upon the candidate, but on the effect of such action upon the schools. The action that wounds a candidate may be the salvation of many a school. The supply of unpromising teachers is always greater than the demand; of promising teachers, always less. The former supply should be kept down, its better elements transferred to the latter and its worse crowded from the field. To strengthen the latter class, not to swell the former, the normal school should fearlessly distinguish between the material it may profitably admit and that which it ought to decline. There are many things to disqualify candidates: —

1. There is the unfitness of physical defects. Personal deformity, extreme unattractiveness, chronic ill health, repellent habits, — these may or may not be the impositions of merciless nature. But, whether the candidate is responsible or not, the situation is not mended; the unfitness exists, and should bar him out.

2. Then there is the unfitness of poor scholarship, — that kind of poor scholarship that is poor down to its roots, that has held out against the schools and still persists, and that is far more likely to keep its spots in the normal school, if given the chance, than to change them. Perhaps its most conspicuous as well as its most hopeless phase is the loose, inaccurate and discreditable English in which it expresses its loose, inaccurate and discreditable self. If the public schools have made little headway against such scholarship during their thirteen years of experience with it, the normal schools should be excused from the folly of trying to revolutionize it in two.

3. Then there is the unfitness of moral make-up, not necessarily in the sense of avoidable immoralities, but in the sense of inherent defects of temper, spirit, aim, earnestness, that cannot but impair one's usefulness from the start.

Here are three groups of disqualifications, — physical, intellectual, moral, — within any one or two or all of which there may be, with or without the candidate's responsibility, invincible obstacles to his success as a teacher, or obstacles so great as to justify the normal school in declining to undertake their removal. There is always the uncertainty, it must be admitted, that in rejecting what looks like unavailable material a diamond may be thrown away; but the anxiety to avoid this mistake is likely to let in more of the poor material than it rejects of the good. Under the most stringent efforts to serve the schools in sifting candidates, doubts are more likely to be settled in favor of the candidates than of the schools. The candidates are present, insistent, potent; the schools are absent, silent, powerless. Candidates have the backing of friends; the schools, if they cannot count on the protection of the examiners, are friendless. To be sure, there are two or three years in the normal school during which the mistakes of admitting unfit material may be corrected. Then there is the last line of defence against such material, — the school committee. But the nearer the mistakes get to graduation, the farther they are from correction; the more they are fortified by diplomas, the less likely are school committees to stand out against them; and when they become entrenched in the schools, service means mediocrity or worse and dislodgment a storm. Better a little heartburning at the start than this misdirection and waste of

energy, bad alike for the normal school, the schools of the State and the would-be teacher. As candidates for teaching multiply, careful selection becomes more and more imperative.

KINDERGARTENS.

Public Kindergartens. — Last year for the first time school committees were instructed to report the number of kindergartens in the State supported at public expense, the number of teachers employed in them and the number of different children in attendance upon them. The following table gives a complete view of the answers : —

XXXVI. *Table of Kindergarten Statistics for the State.*

	Number of Kindergartens.	Number of Teachers.	Number of Different Pupils.
Barnstable County :			
None,	—	—	—
Berkshire County :			
North Adams,	3	6	244
Bristol County :			
Attleborough,	1	2	50
Fall River,	3	6	273
New Bedford,	3	6	182
Dukes County :			
None,	—	—	—
Essex County :			
Andover,	2	2	99
Lawrence,	1	2	45
Marblehead,	2	4	83
Peabody,	2	4	87
Salem,	8	19	346
Franklin County :			
None,	—	—	—
Hampden County :			
Holyoke,	3	6	61
Springfield,	6	14	490
West Springfield,	2	4	126

XXXVI. *Table of Kindergarten Statistics, etc.* — Concluded.

	Number of Kindergartens.	Number of Teachers.	Number of Different Pupils.
Hampshire County :			
Northampton,	1	3	46
Middlesex County :			
Cambridge,	11	22	646
Lowell,	12	25	988
Malden,	2	5	130
Medford,	4	8	399
Melrose,	3	6	154
Newton,	12	23	815
Somerville,	5	11	440
Watertown,	1	2	79
Winchester,	5	10	283
Nantucket County :			
None,	—	—	—
Norfolk County :			
Braintree,	5	5	177
Brookline,	11	19	467
Medway,	2	2	123
Milton,	4	4	236
Plymouth County :			
Bridgewater,	1	2	72
Suffolk County :			
Boston,	65	127	4,849
Revere,	1	2	54
Worcester County :			
Douglas,	1	1	55
Worcester,	10	20	451
Totals,	192	372	12,550

Private Kindergartens. — It should be noted that there are also numerous private kindergartens in the State. Indeed, some of the public kindergartens were originally private ones. The beginnings of the kindergarten movement are not unfre-

quently at the antipodes of a community. That is to say, it not unfrequently gets a hold upon the homes of wealth and of poverty before it wins its way into the more numerous homes between. There is money on the one side to pay for the profit and pleasure the kindergarten brings to children of wealth. There is missionary enterprise on the other, that sees in the kindergarten an ideal way of reaching not only the children of poverty but through them the homes from which they come. Such schools not only serve their special purpose with the children, but become object lessons for the whole community. Occasionally a public-spirited citizen, like Mrs. Quincy A. Shaw of Boston, or some group of citizens, will defray the entire expense of one or more kindergartens in connection with the public school system, until the public is convinced of the value of such instruction and ready to take up the work itself.

State Kindergartens. — In connection with the State normal schools there are several kindergartens whose pupils come from the neighborhood. There is everywhere a much heavier demand to secure the admission of children to these kindergartens than the normal schools can meet. It is not the function, however, of the normal schools to meet such demands. They must limit themselves to only so much kindergarten work as will serve their own professional purpose.

Philosophy of the Kindergarten. — The kindergarten in its best state is a school of superb common sense. Without any attempt to unfold its philosophy, the general statement may be made that this philosophy is really for all ages and all seas, — for the child in its mother's arms, for the student in the university, for the workman at his bench, for the citizen in the State. It would build upon what is and secure the best all-round development possible for that foundation. The methods vary for different ages and conditions. Froebel with wonderful insight developed them for little children, but not beyond the chance of improvement. He would have teachers of children take time by the forelock, forestall those adverse influences that hasten to get in their ruinous work, determine the trend of the little ones for good in their more plastic stages, and do it all in nature's happiest way. There is no bookishness in the true kindergarten. It holds the reins of the child's irrepressible

activity. There is the tide of suggestions rolling in upon the child from without; there is the child's wonderful responsiveness to those suggestions; there is the never-ceasing interaction between the little world within and the boundless one without, — feelings, emotions, ideas forever impelling the child to action and action, again, forever reacting on these inciting things to change them for better or for worse. Thus new ideas are welded to the old, and masses of concepts are gathered that are destined to play fateful rôles in the child's subsequent career. Out of it all the human will, in its mysterious way, emerges, grows strong and shapes the character. Nay, in a sense it is the character itself. How important at this critical time for a wise teacher to be at hand to control these suggestions from without, to guide this inevitable interaction, to favor the nobler rather than the baser of the warring elements within the child, to lead him through imitation up to invention and even to creation, from dependence on others up to self-reliance, from absorption in his own rights and comfort up to some regard for the rights and comfort of others! Indeed, the kindergarten is society and the State in miniature. Here are possible the finest beginnings in social and in civic life. And the work of the kindergarten is done in that most effective of all ways, if not in the only effective way there is, — that of having the child persistently and personally do the things that are fitted to promote his development along the desired lines. It is no wonder that a philosophy like this should overflow from the kindergarten to the primary school and at length so work its way throughout the entire school system as to leave almost everywhere the impression, if not the conviction, that education for every child should take on a more personal and active character, that books should come in to supplement that activity, that schools should not press so much to cover great fields of knowledge as to lay unflinching foundations in selected parts of those fields of such a character that knowledge will gather about them and rise upon them without further intervention of the school. Nothing is more natural than for people to talk and read and think about the things that, by one method or another, have been literally worked into their nerves and muscles, recorded, as it were, in the very fabric of their being.

All the stress placed now-a-days on developing what are called suitable apperceiving centres is but another expression of this philosophy. Even old Squeers of Dotheboys Hall caught glimpses of it, only he brutally wrenched it from its mission of service to the boys to his own avaricious ends, — another instance of angel livery put to the devil's use. It is important that the young teacher shall early grasp this philosophy, and this is why the State Board of Education has authorized the normal schools to include the kindergarten among their model or their model and practice schools. The primary purpose is that every normal student shall catch from it something of the spirit of Froebel. In two or three of the normal schools it is also possible for students to train themselves to become kindergarten teachers.

SCHOOL FACTS FROM THE STATE CENSUS.

Schools and School Property as per State Census of 1895.
— Mr. Horace G. Wadlin, chief of the Bureau of Statistics, in Part 2, Volume III., of the “Census of the Commonwealth of Massachusetts,” under the title of “Population and Social Statistics,” gives some interesting facts about schools and school property that were not available in the discussion of kindred themes in the early pages of this report. It appears that, including 117 buildings unoccupied but available for school purposes, there were on May 1, 1895, 3,395 buildings in use for city, town, county and State schools. Their total valuation, including land, was \$37,447,411. This valuation is based on the estimates of assessors, or, where they are lacking, on the best judgment of the school officer who made the return as to the “combustible value” of the buildings, *i. e.*, the amount that would be lost, or that would be required to replace them, if they should be totally destroyed by fire. The valuation of school property, such as apparatus for teaching purposes and books of reference outside of regular school libraries (which are separately given in the census returns), was \$1,629,994. The furniture is classed with the buildings, not with the property. The distribution of these values among the several classes of buildings was as follows: —

CLASSES OF BUILDINGS.	Number of Buildings.	Valuation of Buildings.	Valuation of Property.
Town and city schools :			
Primary-grammar,	1,145	\$8,987,939	\$397,331
Grammar,	184	6,437,904	212,028
Primary,	710	5,560,441	127,621
High,	90	3,987,175	214,897
Kindergarten-primary-grammar,	82	2,478,134	39,719
Kindergarten-primary,	61	1,967,224	30,677
Primary-grammar-high,	51	542,587	37,002
Grammar-high,	44	947,384	47,435
High-Latin,	11	1,089,945	76,034
High-manual training,	5	1,185,696	59,986
Ungraded,	690	529,870	40,412
Unoccupied,	117	67,487	-
Other classes,	205	2,240,236	109,808
County schools :			
Truant schools (8),	11	260,740	8,290
State schools :			
Normal schools (5),	9	1,012,100	222,255
Normal Art,	1	124,209	3,300
Feeble-minded,	1	28,340	3,199
Totals,	3,395	\$37,447,411	\$1,629,994

The foregoing classification is based on the grades assigned to a single building. Thus, if a building contains primary, grammar and high school grades, it is put into the primary-grammar-high class. This method of classifying buildings yields for the State 47 different classes, 17 of which are given in the foregoing list by name, the remaining 30 being grouped together under the title of "other classes."

Since 1895 there has been unusual activity in the construction of school buildings. Eight buildings, including dormitories, have been erected in connection with the State normal schools, and four have been altered or extended, at an aggregate cost of over \$1,000,000. Numerous buildings have also been erected or permanently improved by the towns and cities, at an aggregate cost, as given in returns to the Board for the past

four years, of \$11,121,799.66. This sum does not include ordinary repairs. It should be observed that the number of public school buildings in actual use by the towns and cities in 1895 was 3,256. The number of schools reported to the Board for 1895 was 4,590, if the unit taken is a single school which has but one head or principal, without regard to the number of rooms and teachers; or 8,874, if the count is based on a single class room as the unit. The number of teaching positions the same year was 10,409, and the number of different teachers 12,027.

Private Schools and Private School Property as per State Census of 1895. — The total number of private schools discovered by the census of May 1, 1895, was 400, classified as follows: —

CLASSIFICATION OF PRIVATE SCHOOLS.	Incorporated Schools.	Unincorporated Schools.	Totals.
Private schools, general instruction, . . .	62	143	205
Kindergartens,	3	29	32
Colleges and universities,	18	1	19
Academies, seminaries and institutes, . . .	42	7	49
Theological schools, seminaries and institutes,	6	—	6
Industrial and manual training schools, . .	7	10	17
Schools, asylums and institutes for the dependent and afflicted classes.	6	5	11
Schools, colleges and conservatories of music, art, elocution and oratory.	3	16	19
School of languages,	—	11	11
Stenographic schools and business colleges, .	2	29	31
Totals,	149	251	400

It is interesting to note that the number of private schools returned by school committees the same year was also exactly 400. The agreement is more a coincidence than an indication that the school committees and the census takers had precisely the same schools to count, and succeeded in counting them without errors of commission or omission. The last returns to the Board give 418 private schools, but the returns now exclude, as they have done for three years past, private schools that deal with adults or with pupils after they have gone through

the public schools. The aim of the Board is to find out how many children are in private schools, who, if there were no private schools, would be likely to be found in public schools. It limits itself, therefore, to private schools of corresponding rank with the kindergarten, primary, grammar and high school grades of the public schools. The distinction is doubtless an embarrassing one to make in certain cases, and the count must fluctuate a little in consequence. In 1885 the State census reported 348 private schools, while the returns to the Board gave 433, or 85 more. The census reports the number on a given day; the school returns, the number during the year. The latter method doubtless captures some schools that have no existence on a given day. The character of the census returns seems to indicate that they deal with schools of a somewhat permanent character. Committee returns include schools of an ephemeral as well as of a permanent character, and very properly, if they are to account for children within the compulsory age limits who must attend public schools if they do not attend private.

The following statement gives the amounts of endowment and income for private schools for May 1, 1895:—

CLASSIFICATION.	Number Endowed.	Amount of Endowment.	Number with Income.	Aggregate Income.
Private schools, general instruction.	9	\$607,405	205	\$1,150,947
Kindergartens,	2	201,441	32	34,534
Colleges and universities, .	14	15,471,822	19	2,437,131
Academies, seminaries, etc., .	32	5,225,010	49	1,103,828
Theological schools, etc., .	4	969,604	6	104,543
Industrial schools, etc., . .	5	287,831	17	79,854
Schools, asylums, etc., for the dependent and afflicted.	3	844,246	11	202,713
Schools of art, music, elocution, oratory.	1	1,400	19	340,272
Schools of languages, . .	—	—	11	22,740
Stenographic and business schools.	—	—	31	239,548
Totals,	70	\$23,608,759	400	\$5,716,110

Of the endowed schools, 64 were reported as incorporated, with an endowment of \$23,608,759 ; and 6 as not incorporated, with an endowment of \$555,676. Of the 400 schools, 149 were reported as incorporated, with an income of \$5,716,110 ; 251 as unincorporated, with an income of \$1,086,540. The number of buildings reported for these 400 private schools was 746, of which 692 were owned by them and 7 hired, the valuation of the buildings being \$17,941,825 and of the property \$1,944,821.

DECADES.	PERCENTAGE OF INCREASE IN VALUE.			
	PUBLIC SCHOOLS.		PRIVATE SCHOOLS.	
	Buildings.	Property.	Buildings.	Property.
From 1875 to 1885, . .	.22	.11	1.39	3.80
From 1885 to 1895, . .	.61	.56	.90	.18
From 1875 to 1895, . .	.97	.74	3.40	4.65

It must not be overlooked that the census includes in its list of private schools the great colleges and universities, which are in no sense rivals of the public schools. No inference can be drawn, therefore, from the census returns about the relative gains of the public schools and of those of the private schools that run strictly parallel to them. The table reveals a remarkable but rather steady gain in public school buildings and property and an astonishing but uneven gain in the corresponding items for private schools, the one gain exhibiting the spirit of taxpayers and the other of private munificence. It should be kept in mind that during these twenty years the population of the State has increased by nearly a million people and its valuation by nearly a billion dollars.

The typical modern schoolhouse is a well-equipped workshop. The equipment is as essential as the building itself. It is a shame to put up costly school buildings and leave them barren. If there must be a choice between costly structures unequipped and cheaper structures well equipped, by all means let the choice go to the latter. Ten or fifteen per cent. off from the cost of any building would go far towards furnishing

straw for the bricks which the teacher is expected to make. But well-to-do communities are under no compulsion to make such a choice.

EXHIBITION AND PRESERVATION OF SCHOOL MATERIAL.

Paris Exposition of 1900. — In 1873 the State appropriated \$3,000 for an educational exhibit at Vienna; in 1876, \$9,500 for one at Philadelphia; in 1892, \$10,000 for one at Chicago, the cities and towns increasing the amount by some \$5,000. The State should be represented at Paris in 1900. The limitations of space will force any exhibit to be a small one; so much the more reason, therefore, for its being a good one. One of the most effective ways of making known our system is through a series of pamphlets, not to be distributed broadcast, but to be furnished those who want to know about our schools, and are likely to study them when the distractions of sight-seeing are over. Suppose one should bring the history of our normal schools down to date, with illustrations of their buildings and material equipment; suppose another should do the same for our high schools, taking advantage, in particular, of those commodious, splendidly equipped and beautiful buildings, or typical selections from them, that have been recently erected in Boston, Cambridge, Springfield, Holyoke, Pittsfield, Medford, Newton and scores of other places; suppose a third should take up the grammar schools, a fourth the primary schools and the kindergartens, and so on, until the plan has covered fully, though concisely, our history, our school laws and our present educational status. If such accounts are attractively written, illustrated and presented, they would be very precious, not simply for the enlightenment of other States and countries, but for our own edification. The skilful use of graphic representations is also an impressive way of bringing out educational facts. Whatever is shown will have to be compact; it must content itself with narrow quarters. Not only do the foregoing suggestions meet this requirement, but such work of pupils as can be bound in volumes readily falls in with it.

It is also very important that exhibits of school attainments at any period in our school history should be scrupulously preserved. One of their great values does not become conspicuous

until fifty or a hundred years have elapsed, and the people of later generations are permitted to see what their ancestors did before them, and whether the “new education” of 1950 or 2000 is justified in taking the palm from the “new education” of 1850 or 1900. What would we give to-day, if, instead of the tantalizing fragments that have come down to us, we had a complete educational exhibit of the times when “our brother Philemon Pormort” was “entreated to become schoolmaster” in Boston, or when Ezekiel Cheever, master of the famous Latin School of that city, was nearing his hundredth year and still teaching. To fail to save valuable educational material when it is in possession, and when the cost of saving it is so slight, is absolutely unpardonable.

State Exhibit of Drawing. — In 1872 the first State exhibit of drawing was given in Boston. Such exhibits were given annually, down to 1881, usually at or near the end of the school year, just before the summer vacation. The ninth exhibition, that of 1880, was given at the Normal Art School, and the tenth, that of 1881, in connection with the Mechanics Fair. The last exhibitions did not equal the earlier ones in exciting the interest of the projectors, the contributors or the public, partly, it may be presumed, because the idea was getting to be an old story, and partly, it is possible, because of removal to a less convenient locality or of association with the counter attractions of a great fair. Eighteen years have now elapsed; there have been numerous local exhibits, but none by the State. It would be both instructive and stimulating to take a large view once more of what the State is doing. Courses in drawing fully illustrated in all grades with pupils' work, the work of manual training, evening and normal schools, contributions from the Normal Art School, exhibits by publishers and manufacturers of books and materials for art instruction, as well as of photographs, pictures, friezes and the like, for schoolroom decoration, photographs of drawing and art rooms in modern schoolhouses, etc., — these things cannot be brought together without yielding valuable results. Teachers of drawing cannot fail to be profited by a comparison of methods and products. The profit comes, whether they observe things to follow or things to shun. The general drift of the art instruction of the State will be brought

out. There will be data on which to base opinions. If the data are promising, the general spirit of the instruction may be commended; if unpromising, it is vital to know it and also the remedy to be applied. In the committee's report on one of the old State exhibits occurs the following statement: "It is a triumph of drawing that all mere picture-making has been abolished, and a thing of work, having industrial aims and means, substituted for the thing of play that drawing used to be." This committee was composed of Charles C. Perkins, Otto Fuchs, Henry Hitchings and Walter Smith, — Mr. Perkins, the chairman, eminent for his fine artistic spirit and the wonderful impetus he gave to the teaching of drawing in the public schools, and the rest experts in the theory and practice of art instruction.

To-day many think highly of the picture-making trend of the child. It is something that is spontaneous and joyous; it is something that merits respect; it is something on which to build. Here, as elsewhere, they say, there may be progress from play to work. Starting in with points, proceeding from points to lines, rising from lines to plane figures and then to solids, and so on, — some such order as this is doubtless consistent with the development of drawing as a formal science; but starting in where the child gives the hint, proceeding from his brief and crude experience outward, winning him by degrees to that sturdier, more exacting and more systematic work to which he must finally come if he is to draw well, — this better harmonizes with the idea that the main thing is to get from the child what he is best fitted to express. There has been a revolution in the methods of teaching children to talk, to read and to write. Is it a revolution that has extended or ought to extend to methods of teaching children to draw? The quotation from the committee's report does not present their view in full, nor does the hint here given do justice to a certain later and seemingly antagonistic view; but it would be interesting to know — nay, our industrial and art prosperity may depend on knowing — which of the two views dominates the instruction to-day, which of the two yields the better fruit, either of appreciation or execution or both, which of the two, on the whole, is better for the child's growth, or whether, after all, there is room for

both views, each in its place. While it may not be wholly idle to theorize about these things, practical people would rather see for themselves what the methods of to-day actually bring forth than merely read what theorists say they will bring forth. A State exhibit would throw a flood of light on the drawing situation, and furnish answers, favorable or otherwise, to many questions that people not only have a right to ask but are under bonds to ask if they are interested to keep Massachusetts in the front rank. It takes money, but not a large sum, to hire a suitable place for such an exhibit, to mount and display the contributions of the several cities, towns and schools, and to care for them properly. The State and local supervisors of drawing would gladly work to promote the success of such an exhibit without dreaming of additional pay. It is recommended, therefore, that the State make the necessary provision for such an exhibit, to be given under the care of the State Board of Education. Such provision would be especially opportune if art instruction in the schools of the State is to be represented, either separately or in connection with a United States exhibit, at the Paris Exposition of 1900.

The Educational Museum. — No appropriation was made for the Educational Museum last year. No attempt was made, therefore, to keep it open to the public. The small collection of the museum at the State House is an exceedingly valuable one. There seems to be no chance for its extension there. There are still nearly one hundred boxes of educational material from Chicago stored in the basement of the Latin school building, by the courteous sufferance of the city of Boston. There is not a cent available to remove it, should a request be made to that effect. Indeed, such a request was made not long ago, but was subsequently suspended. This material should be neglected no longer. Barring a few things which should be returned to the contributors, in accordance with an old understanding, the property belongs to the museum and the State. Should the State assemble any material for the educational exhibit at Paris, in 1900, this, too, if not otherwise disposed of, like certain Massachusetts material that was sent to the Universal Exposition of 1878 and subsequently presented to the Musée Pédagogique in Paris, should be saved and added to the

present collection. There are still great possibilities for service in this material, if no possibility of more room for it in the crowded State House. Under no circumstances should the State permit its dissipation and abandonment. Much of it might be loaned to the State normal schools. A certain part of it would make an admirable travelling exhibit, to be displayed for a few months at one normal school, a few months at a second, and so on. Some of the material might possibly help out a State exhibit in drawing. Some of it might be returned to the contributors. In these things the Board should have authority to use its discretion. There should be a small sum annually available for the foregoing purposes, as well as for the care of the collection at the State House, and such additions as may come to it from the Paris Exposition or other sources. This plan would make the collection serviceable to the normal schools, to which it would be of special interest, and permit the reassembling of it or of so much of it as may be needed when conditions become auspicious.

STATE SCHOOL FUND.

How the Income of the State School Fund should be used. — The law requires (section 6, chapter 43, Public Statutes), that the income of the school fund received by the several towns shall be applied by the school committees thereof to the support of the public schools therein. A sum not exceeding twenty-five per cent. of the same may be expended for the purchase of books of reference, maps and apparatus. No other use of this income by the towns is legal. All unexpended balances of the income at the close of the year belong exclusively to the schools. Turning such balances into the town treasury in any way that permits them to be absorbed or lost in expenditures for other purposes than those specified is a flagrant violation of law. The town treasurer is delegated by law to receive this money; he holds it in trust for the school committee; it is subject not to the order of the selectmen or of the town, but of the school committee; any vote of the town is superfluous that directs its expenditure in accordance with the law, and worthless that directs its expenditure contrary to law; it is the duty of school committees to guard the control which the law

has given them, and to see that every cent is expended as the law directs. The town treasurer should keep a special account of this money with the school committee and suffer none of it to slip into other than its legal use.

How far the Towns conform to the Law.—In response to an inquiry made in the blank form sent out last spring for the usual school returns, 251 towns reported that their shares in the income of the school, including unexpended balances, were strictly and exclusively used as the law directs. Two towns, Essex and Princeton, made no reply to the inquiry, and the town of Holland admitted that “not all” the money was used for the schools. The remaining 99 towns and cities receive nothing from the fund.

It is not clear that the word “support” is interpreted by all alike. The only definition of it in the statutes is found in the form which they prescribe for the sworn certificate of the school committee that is annually sent to the secretary of the State Board of Education. There it includes “only the wages and board of teachers, the transportation of children, fuel for said schools and the care of fires and schoolrooms.” Supervision, text-books and sundries were classes of school expenditure either unknown or so small as not to attract attention in the simpler times when the certificate was planned. Expenditures for schoolhouses were purposely excluded from the certificate. And so it has come about that “support” as used in the statutes has a somewhat narrower meaning than “support” as used in the popular sense.

Use of the School Fund for Equipment.—As has been stated, twenty-five per cent. of what the town receives may be expended for teaching material. The amount of income distributed last year to the towns was \$90,018.51. Twenty-five per cent. of this is \$22,504.63, a sum that would go a great way in furnishing teaching equipment to needy schools, especially if such a sum should be expended annually for a series of years. As a matter of fact, but \$2,994.42, or a little over three per cent., was expended for this purpose. There is a lamentable lack of teaching appliances in many a school. It is a lack not unknown to the clean, airy, light, down-to-date schoolroom; it is a matter of course in the neglected, an-

tiquated, repellent makeshift of a schoolroom that here and there still disgraces the community that tolerates it. The good school will have books, maps, globes, photographs for history and geography, wall pictures, illustrative apparatus, — in short, abundant and appropriate material to work with; and the good school committee will spare no pains where such appliances are lacking to provide them. The law invests the school committee both with the power and the means to meet this imperative need of the school, — a hint of duty so strong that it falls but little short of a mandate.

TENURE OF OFFICE FOR TEACHERS.

Tenure of Office for Teachers. — Chapter 313 of the Acts of 1886, known as the tenure of office act, provides that the school committee of any city or town may elect any duly qualified person to serve as a teacher in the public schools of such city or town during the pleasure of such committee: *provided*, such person has served as a teacher in the public schools of such city or town for a period of not less than one year. The question was put a year ago to each school committee whether or not it took advantage of this law in appointing teachers. One hundred and thirty-five committees reported that they did. The favorable replies were so unexpectedly numerous that the fear was expressed that some of them might have been given under a misapprehension. The question was a new one, and not so carefully guarded as it might have been. This year the question was so worded that it seems hardly possible for a school committee, or its agent, to have said “yes” when the answer should have been “no.” The returns gave 111 towns and cities in which teachers are appointed to serve during the pleasure of the committee. In 242 towns and cities the practice of annual elections, or of elections for a shorter period than one year, still prevails.

TEMPERANCE, MUSIC, NATURE STUDY.

Temperance Instruction. — To an inquiry whether the law was obeyed which provides that physiology and hygiene, with “special instruction as to the effects of alcoholic drinks, stimulants and narcotics on the human system, shall be taught as a

regular branch of study to all pupils in all schools," 345 towns and cities said "yes" and 8 did not reply at all. Of the affirmative replies, 2 were qualified. "Partly so" said one town, and "high school only" said another. Some of the replies were doubtless perfunctory ones, based on the general assumption that the law is obeyed, without knowledge to that effect. It may be said, in general, however, that the law is respected with varying degrees of thoroughness and success.

It is not an easy thing to know how best to accomplish the main purpose of temperance instruction in the schools, — that of so furnishing the mind and stirring the soul of youth that they shall successfully resist through their subsequent lives every seductive influence that would lead them to use or make a beginning of using intoxicating liquors. If teachers earnestly discuss the matter, and find themselves at times not in accord, it is no sign of hostility to the law, but a recognition rather of the magnitude of the problem and the duty of studying it carefully. The holiest cause may be pressed injudiciously and even *ad nauseam*. Surely the teacher should not wreck her instruction on that rock.

"I beg you to excuse me," said a Harvard student most politely but most firmly to his host, "but I must decline." It was a brilliant company; wine was freely flowing. The host — a mature man who should have known better — had pressed the student to drink, and had sneered at him for declining. It was a trying ordeal, but the young man had the nerve to endure it. Now, what is the training that yields a moral heroism like that? Surely its secret is worth finding out. Whatever it is, let it be given a high place in the instruction of the school.

I believe the vast majority of our Massachusetts teachers are in profound sympathy with the thought that our schools should spare no pains to train the children to temperate living in all things. I believe them to be substantially agreed that, in the case of alcoholic drinks, the only true and safe temperance lies in total abstinence therefrom. I believe them to be substantially agreed that temperance instruction should be both moral and scientific, as required by the earlier and the later laws. But I believe that to a man, to a woman, they also stand for the right of free discussion within the limits of the law as to

the best ways of accomplishing the great purpose on which their hearts are united. Better a thousandfold the life and stir of such discussion, with all the differences inevitable thereto, than the stagnation of unquestioning, mechanical compliance with any prescribed scheme whatsoever. Out of it all, especially if good temper and mutual toleration prevail, a finer product in the way of sound teaching may be expected in time to issue. The secretary, agents and all employees of the Board have invariably stood for the faithful observance of the law, and great pains has been taken during the past four years, beyond any previous effort, to direct attention to its provisions and to suggest to the teachers sound methods of meeting them.

Music in the Schools.—The statutes permit music to be taught in the schools, but make no requirement to that effect. Nearly all the towns in the State, however, regard it so highly that they have given it a place in their schemes of study. The returns on which the sixty-first report was based showed that there were 173 special teachers or directors of music, — 71 men and 102 women, — giving instruction in 180 towns and cities. They reached more or less directly 372,531 children out of the total number of 439,367 different children in the public schools for the year. The remaining 173 towns have a school population of 66,836 children. In other words, 85 per cent. of the public school children of the State are in schools that have special directors of music. Some of the larger cities have more than one instructor each. Of the smaller places, two or three sometimes unite in employing the same teacher. A superintendency district frequently makes a good unit for a single instructor. In some places the music director instructs the teachers and shapes the work which they in turn give their pupils. In such cases he also usually gives some instruction to the pupils themselves, particularly in the higher grades. More generally the director personally gives to the pupils all the musical instruction which they receive. The regular teachers need to be interested in the subject; it largely turns on their interest whether or not singing is to prove the refining and joyous everyday power it ought to be in the schoolroom. They should supplement the musical director, — a duty large numbers of them admirably discharge.

It must not be assumed that music is limited to the domain of the musical director. In towns that arrange for no special instruction in music, the regular teacher is the sole dependence. It not rarely happens, in case of shortcomings in the teacher's musical education, that her admirable skill in handling her pupils, combined with an earnestness to have them sing, whether she can or not, yields results that are exceedingly creditable. And when the teacher has an ear, a voice and a taste for music, the results may be all that can be desired. Some of the purest, sweetest, most enjoyable singing that I have ever listened to from average school children I found in a rural school where the musical director was also the director of everything else, — a slender, girlish teacher, not long out of the normal school, of that quiet, modest, gentle type that is forever surprising one with its extraordinary effectiveness.

Music in the Normal Schools. — It goes without saying that the normal schools should give instruction in music to their students. Theoretically, such instruction should relate to approved ways of teaching it in the schools. This theory presupposes an already developed musical ability in students when they enter the normal school. But neither the instruction now given in the normal schools nor the fitness of the students to receive instruction wholly meets what the theory requires. At present music is taught there for the joy and the refinement of it, as in any school, which is perfectly legitimate; and to some extent, but not so fully as it ought to be, with definite thought of the singing problems that will confront the normal graduate when she begins to teach. If candidates presented themselves for admission with a better preparation in music, more might be done with strictly professional instruction in the subject. Advantage was taken of the raising of the admission standard in 1896 to encourage such preparation in music. The questions set for music at that time and in the examinations since have been elementary and simple. The object thus far has been more to publish the importance of musical training as a factor in the teacher's equipment than to subject the candidate to a searching test. This purpose the examination has already accomplished. Hundreds of young people who are thinking of teaching are asking themselves whether they are

likely to be able to teach singing or not, and numerous teachers charged with the duty of preparing them for the normal schools are impressing it on their minds that they need to make the most of their musical instruction in the schools. The elements of musical theory every teacher should know, and, while it is not impossible for a teacher to conduct the singing of others when she does not sing herself, it is undoubtedly a valuable additional qualification if she can reinforce her precepts by correct and pleasing examples. The admission examination should in time be made more searching, but in no event is it likely to impose a new burden upon schools where music is reputably taught. No more time will be needed for music, but only a better use of that time by the candidate, a more heedful attitude towards the instruction, a more studious inquiry into the meaning of it all while it is passing.

Nature Study in the Lower Grades.—Unlike most school subjects, nature study has not been reduced to a conventional form,—the same for every town and every school. Nature rings endless changes upon herself; she has her seashore, her rural, her mountain aspects; her moods for summer and for winter and the shifting times between. For every change of place and of date there is a new dress from her infinite wardrobe. To compass nature,—that is not to be thought of. The vastness of the field forbids. The hopelessness of the task is a blessed feature of the study. Here is one study, at least, where mere acquisition may be thrown to the winds; one study where the higher aim is not so easily missed,—that of keeping the child in 'an ever-enlarging sense *en rapport* with the world that excites his wonder. It will be a sad day not only for the child but for the adult when this delightful wonder relapses into indifference. To be sure, nature is a theme on which the child may try his tools,—it gives him something to talk, write, read or think about; something to count, measure, weigh, draw, watch or otherwise test; something to stir him up and draw him out and tax him on all sides. And so knowledge comes from the study, and often, with scholarly and tactful teaching, in ways that are pat. But how finely the study fits into the spirit and aptitude of the unspoiled child, widening his mind as it widens his horizon, and kindling his soul as it opens up new

prospects to his delighted vision! And what capital foundations in awakened interest and a longing for more may be laid for the later years, when nature is more clearly seen as many worlds in one, and there come into sharper view the sciences of animals and of plants, of matter and its combinations, of force and its transformations, of the interrelations of all these things, and how they have come up through the long ages from their nebulous beginnings! An examination in nature study — the shades of great teachers forbid! Unless, indeed, the examination goes to the heart of the great purpose, unless it seeks to find out, not that the buttercup's stamens are hypogynous, but that the child's soul is still aglow. Facts may come and facts may go, — it matters less than many suppose whether they do or not, — but the spirit to know them, the way to find them out, the heart to feel them and the ascent by these humbler rounds to a sturdier spirit, a better way, a truer zest, — if such things exist, let the child be marked a hundred in the teacher's mental notebook, and the facts look out for themselves. There are so many subjects in which the child must be tested, not so much by standards within him, by which alone he can be fairly judged as a child, as by standards without, of arbitrary making, and based on notions of scholarship, that when a study is found to say, "I am to be bent to the child and not the child to me," the schools should make the most of it. The child, of course, must not be permitted to say "John ain't," or to write *i* for *I*, or to find five where there are but four, or to call feet inches, or otherwise to misuse the tools he is trying to master. Here he must be held to account from the start. But in nature study — at least on its culture side, — his free spirit should go untethered a longer time. Even here, however, when physics or chemistry or botany begins to emerge as a separate science, tests of scholarly attainment must come at last, for one's scientific house must be founded on a rock or the floods will sweep it away.

It is certain that nature study is winning the schools and the children. Teachers are handling it better. If its spirit is missed, it is missed by diminishing numbers, and the better teaching will not fail in time to prevail. But with all the gain that is making there is still many a teacher who

moves along in the old narrow, ascetic ruts, as if the highway that leads up to her schoolroom door never knew such a thing as the chipmunk's hide-and-seek in the wall that borders it or the call of the musical wood thrush from the thicket hard by.

Agriculture and Nature Study. — The constitution charges the Legislature with the duty of encouraging private societies and public institutions for the promotion of agriculture and “a natural history of the country,” as well as of the arts and sciences. The State Board of Agriculture was established to have special oversight of this important interest. Numerous organizations throughout the Commonwealth, through discussions, exhibitions and prizes, bear witness to the hold that this most ancient, honorable and necessary industry has upon the affection of the people. And crowning all, superbly located at Amherst, in the unrivalled valley of the Connecticut, with admirable facilities for study and practice and accomplished teachers to insure their profitable use, stands the State Agricultural College. That the schools should recognize agriculture as a study has long been in the thought of the people. For many years it has been one of the subjects mentioned in the statutes which school committees may require to be taught in the public schools. The secretary of the State Board of Education is by law one of the trustees of the Agricultural College, in recognition, it may be presumed, of the general conviction that there is something in the farm and the garden to profit the school and something the school in return can bring to the farm and the garden. Just what that something is in either case has been a burden on many minds. Either as a formal scientific study or as an art to be practiced in any real way, agriculture is hopelessly beyond the schools. It is a science of many sciences, an art of many arts, and when one would seriously study the former or practice the latter, one hardly knows where to strike in, what to take up next and where to leave off. Mother earth is fairly accommodating; she will do something even for those who neglect to study her, provided they treat her no worse than the generality; but her richest fruits and sweetest smiles are specially reserved for those that know her best and treat her most considerately.

But if such knowledge or treatment is beyond the schools, the schools may at least show some of the grander relations that exist between what they teach and the tilling of the soil and awaken an interest in studying them. Now nature study in the lower grades and science study in the upper may, without demands upon the schools for additional time, lend themselves naturally and happily to just this thing. Indeed, this is what they do already in an incidental way, even when there is no conscious effort by the teachers to direct the study into this particular channel. But more is easily possible, more is desirable, and, in some schools, more is actually doing. The school gardens that are better known abroad than with us; the window gardening of many of our own schools, notably in Boston, where the park authorities encourage it with their surplus plants and with some specially cultivated for the purpose; nature study experiments in the schoolroom with germinating seeds and young plants; observations where feasible of what is going on in the garden and on the farm with reports thereon to the school,—these things and many more mean that some schools, if they are not teaching agriculture directly, are yet in a mood to do so. In short, the conditions are ripe in such schools for including in nature study and in the sciences into which it later differentiates the only kind of agricultural study that seems feasible,—the kind that makes no attempt to go far into the field, much less to cover it, but limits itself to giving a few glimpses of it and trying to awaken an interest in it. The arguments for such study, like those for manual training, naturally divide into two classes,—one dealing chiefly with its more obvious utilities, the other with its educational and moral values.

What the State Agricultural College might do for Nature Study in the Schools.—The State Agricultural College, if authorized to do so, might readily give a commendable agricultural tone or value to some phases of nature study in the schools. It might send forth to the teachers of the Commonwealth valuable leaflets on approved themes, scientifically sound on the one hand, and, on the other, adapted in presentation and illustration to the minds of the young. This mode of reaching the schools is commended by the department of agri-

culture at Washington. It is now on successful trial in New York. The College of Agriculture at Cornell University is now furnishing the teachers of the State, particularly in the rural towns, with "teachers' leaflets on nature study." "The fundamental difficulty with our agricultural condition," say the authorities at Cornell, "is that there is no attempt to instruct the children in matters which will awaken an interest in country life. We have therefore conceived that the place in which to begin to correct the agricultural status is with the children and the rural schools. . . . We are now convinced that the greatest good which can be rendered to the agricultural communities is to awaken an interest in nature study on the part of the children. . . . The best way in which to reach the pupils and the teachers is by short and sharp observations upon plants, insects and other natural objects. . . . So far as the present outlook is concerned, it is perhaps not too much to say that we believe that this movement, directed towards the young people of the rural communities, is the most important one which has developed in agriculture since the consummation of the experiment station idea."

The following leaflets have already been issued by the College of Agriculture at Cornell University: (1) How a squash plant gets out of the seed; (2) How a candle burns; (3) Four apple twigs; (4) A children's garden; (5) Some tent-makers; (6) What is nature study? (7) Hints on making collections of insects; (8) The leaves and acorns of our common oaks; (9) The life history of the toad; (10) The birds and I; (11) Life in an aquarium. With one or two exceptions these leaflets are illustrated. They are designed primarily for the teacher, not for the pupil.

Now, there are schools in Massachusetts — many more than people suppose — that have anticipated such leaflets as these, and much more besides. Mr. Carroll, superintendent of the Worcester schools, informs me of the coöperation of the Worcester Society of Natural History with the city schools in promoting the study of birds, especially their relation to plants and insects, with reference to noting how far they may be helpful or hurtful to farmers, gardeners and others. The work of Dr. Clifton F. Hodge and Miss Helen A. Ball in fostering such

study is particularly mentioned. “Our schools,” says Mr. Carroll, “are alive to the subject.”

The Massachusetts Audubon Society, 234 Berkeley Street, Boston, through its “Helps to Bird Study” and other circulars, contributes to the school interest in nature work. In his belief that the disinterested and laudable work of this society should be encouraged, the secretary of the Board furnished it with the following letter, to accompany such leaflets as it might send to the schools:—

To Superintendents and Teachers of Massachusetts Schools.

Permit me to suggest that it is our duty, and should be our pleasure, within the limitations of our respective positions and with due deference to the varied interests pressing upon our attention, to welcome any co-operation that aims, in a disinterested way, to promote the growth of humane and other noble sentiments in our youth.

It is in the spirit of this thought that I call your attention to the aims and purposes of the Audubon Society of Massachusetts, one or more of whose leaflets accompany this letter. I commend to you the valuable hints of this society on the study of birds. I commend to you its earnest plea for their merciful as well as their legal treatment. I commend to you, in particular, the thought that, if such study and such treatment mean much for our birds, whose preservation is sought for their service, their beauty and their song, they mean still more for the boys and girls, whose minds and hearts they tend to unlock. I commend these things with the greater confidence, because such study, on the one hand, blends most happily with that nature work whose successful doing is full of promise for our schools; while such merciful treatment, on the other hand, especially if it goes out not only to the birds of the air but to all creatures that God has made and mercy can reach, is a fitting response to the heart's desire of the Commonwealth, as doubly expressed in its constitution and its laws, that all its youth should be trained to humanity.

The genuine student of nature, who finds his themes in the books of God as well as in those of man, cannot well be other than an ardent lover of nature. The tender, humane and reverent spirit of a soul properly attuned to nature is a conspicuous element in that exalted ideal of character which the schools of the State are enjoined by law to set forth.

FRANK A. HILL, *Secretary.*

The numerous societies of the Agassiz Association, which originated in the enthusiasm of Mr. Harlan H. Ballard of Pittsfield, show how young people may be led of their own motion to study nature.

The Massachusetts Society for the Prevention of Cruelty to Animals in many ways touches the schools. Its work, as its name sufficiently tells, is primarily the protection of dumb animals; but this work has its nature, its agricultural and its moral aspects as well. It deals with the characteristics of animals, — nature study, in that it treats of a lively section of nature's domain; it seeks their health and comfort, and their merciful disposition when time for them has run its course, — agricultural study, in that, while serving all who have to do with animals, it serves particularly the farmer; and it cannot be carried on successfully unless it appeals to law on the one hand or to mercy on the other, — ethical study, in that it trains to obedience or humanity or both.

Nor should the natural history collections of the State be overlooked, in enumerating the incentives and helps to nature study, supreme and superb among which is the great University Museum at Cambridge, founded by Louis Agassiz. It is well worth a school pilgrimage from remote parts of the State to see its treasures, and many such pilgrimages from the schools round about.

Our State normal schools are taking pains to train their students to this sort of work, some of them having an admirable equipment for the purpose. To Mr. Arthur C. Boyden, vice-principal of the Bridgewater Normal School, special credit is due, if special credit may be given when many are entitled to credit, for the excellence of his work in this particular field. The State Board of Education in its institute work seldom omits to present the subject to the teachers in attendance. Some of the most beautiful reading books ever prepared for children deal with nature themes. The secretary has personally examined local exhibits of school work in which there is overwhelming evidence of great interest in the study.

To enumerate all the agencies that aim to promote attention to one or another of nature's kaleidoscopic phases, or to give all the illustrations that are possible of school interest in nature

study, is not here feasible. To one who thinks chiefly of nature's infinite variety, it is all very bewildering, — this much-lauded study that has neither metes nor bounds that a curriculum can publish; but to one who notes rather that not what nature offers the child but what the child is able to assimilate from nature is the true criterion, the study takes on a simpler, a more manageable aspect.

There are many schools, it thus appears, that have already made promising beginnings in nature study and even in giving it the husbandry cast desired. Such schools would welcome any additional aid that might come to them, whatever the source; but there are hundreds if not thousands more that need to be awakened to a similar interest. Judicious aid from the State Agricultural College would fit into the interest of the one class and the need of the other. In leaflets variously prepared and adjusted, some for the rural schools, some for the city schools and some for both, some for the younger pupils and some for the older, some with the flavor of the farm and some without, there is a chance to improve upon what has thus far been done in New York, though not upon the ideals of the broad-minded men that projected the New York movement.

Nor would the issuing of nature study leaflets by the college exhaust its possibilities for serving the schools and the State. Whatever the reasons for establishing the college, these reasons may be urged for widening its influence in all legitimate ways. Suppose the Agricultural College should be permitted to open a summer school for four or five weeks; suppose provision should be made for the free tuition of those in the State whose special business it is to train students at the normal schools or guide teachers in the public schools in giving instruction in nature study, other patrons of the school being required to pay a moderate charge; suppose the work of the school is limited to nature study, or to selected phases of it, and so given an intensive character, — might not such a school prove a popular and effective means not only of strengthening the study throughout the State but of solving the agricultural problem of the schools? For such a school the college would be an ideal place. It is one of nature's finest country seats. Wealth of illustration and wealth of beauty are both there, the one to instruct and the

other to charm. Life for a few weeks on one of the finest farms in the State, in the prime of the growing season, would give just that opening of the mind and that warming of the heart towards agriculture which the teacher needs to color his instruction in nature subjects. Is there not enough of value to the schools and the State, to say nothing of the reflex influence on the college, in the foregoing suggestions to enlist the earnest attention of the college and the Legislature?

What is Nature Study? — What is nature study? Some people fear it is a new thing that will require time, like arithmetic, that means more books, more set tasks, more reciting of lessons, more struggling to cover definite amounts of work within prescribed times, — another burden upon the camel's overweighted back. Perhaps there are teachers who make it such a burden. Probably it is a burden to the teacher who lacks the knowledge or the interest to guide it. L. H. Bailey, chief of the Cornell University Agricultural Experiment Station, and professor of horticulture there, answers the question so sensibly that a part of his answer is here quoted, even though some of its points have already been anticipated: —

It is seeing the things which one looks at, and the drawing of proper conclusions from what one sees. Nature study is not the study of a science, as of botany, entomology, geology and the like. That is, it takes the things at hand and endeavors to understand them, without reference to the systematic order or relationships of the objects. It is wholly informal and unsystematic, the same as the objects are which one sees. It is entirely divorced from definitions or from explanations in books. It is therefore supremely natural. It simply trains the eye and the mind to see and to comprehend the common things of life; and the result is not directly the acquirement of science, but the establishment of a living sympathy with everything that is.

The proper objects of nature study are the things which one oftenest meets. To-day it is a stone, to-morrow it is a twig, a bird, an insect, a leaf, a flower. The child, or even the high school pupil, is first interested in things which do not need to be analyzed or changed into unusual forms or problems. Therefore, problems of chemistry and of physics are for the most part unsuited to early lessons in nature study. Moving things, as birds, insects and mammals, interest children most and therefore seem to be the proper subjects for nature study; but it is often difficult to secure specimens when wanted,

especially in liberal quantity, and still more difficult to see the objects in perfectly natural conditions. Plants are more easily had, and are therefore more practicable for the purpose, although animals and minerals should by no means be excluded.

If the objects to be studied are informal, the methods of teaching should be also. If nature study were made a stated part of a curriculum, its purpose would be defeated. The chief difficulty with our present school methods is the necessary formality of the courses and the hours. Tasks are set, and tasks are always hard. The only way to teach nature study is, with no course laid out, to bring in whatever object may be at hand, and to set the pupils to looking at it. The pupils do the work,—they see the thing and explain its structure and its meaning. The exercise should not be long, not to exceed fifteen minutes at any time, and above all things, the pupil should never look upon it as a recitation, and there should never be an examination. It should come as a rest exercise, whenever the pupils become listless. Ten minutes a day, for one term, of a short, sharp and spicy observation upon plants, for example, is worth more than a whole text-book of botany.

The teacher should studiously avoid definitions and the setting of patterns. The old idea of the model flower is a pernicious one, because it really does not exist in nature. The model flower, the complete leaf, and the like, are inferences; and pupils should always begin with things, and not with ideas. In other words, the ideas should be suggested by the things, and not the things by the ideas. "Here is a drawing of a model flower," the old method says; "go and find the nearest approach to it." "Go and find me a flower," is the true method, "and let us see what it is."

Every child, and every grown person, too, for that matter, is interested in nature study, for it is the natural method of acquiring knowledge. The only difficulty lies in the teaching, for very few teachers have had any drill or experience in this informal method of drawing out the observing and reasoning powers of the pupil wholly without the use of text-books. The teacher must first of all feel the living interest in natural objects which it is desired the pupils shall acquire. If the enthusiasm is not catching, better let such teaching alone.

All this means that the teacher will need helps. He will need to inform himself before he attempts to inform the pupil. It is not necessary that he become a scientist in order to do this. He simply goes as far as he knows, and then says to the pupils that he cannot answer the questions which he cannot. This at once raises the pupil's estimation of him, for the pupil is convinced of his truthfulness, and is made to feel—but how seldom is the sensation!—that

knowledge is not the peculiar property of the teacher, but is the right of any one who seeks it. It sets the pupil investigating for himself. The teacher never needs to apologize for nature. He is teaching only because he is an older and more experienced pupil than his pupil is. This is just the spirit of the teacher in the universities to-day. The best teacher is the one whose pupils farthest outrun him. . . . The district school cannot teach agriculture, any more than it can teach law or engineering or any other profession or trade ; but it can interest the child in nature and in rural problems, and thereby fasten its sympathies to the country. The child will teach the parent. The coming generation will see the result.

Reconciliation of Breadth and Thoroughness in School Instruction. — At the regular meeting of the Massachusetts Superintendents' Association, held at Worcester, Friday, May 20, 1898, the secretary of the Board, by request, submitted the following propositions for discussion. They were purposely left in language that needs to be variously supplemented or qualified. Still, they are believed to indicate sufficiently a trend of thought that merits earnest consideration, because of important consequences that should follow if the trend is deemed to be in the right direction. The propositions are reproduced here, in the hope that they may receive further thought : —

1. *Education in its Higher Aspects.* — It is a pertinent question whether enrichment of the school curriculum by the addition of interesting subjects of study favors or discourages thoroughness of work by the pupil. In this connection it is presented as a sound proposition that education in its higher aspects proceeds only as the child profitably applies the means nature has given him and the tools he may have mastered to the culture-material about him. The school curriculum should therefore provide for instruction in culture-material as well as in tool-material. Thoroughness involves (1) the mastery of such means and tools ; (2) the mastery of the subjects to which such means and tools are applied ; and (3) rightness of attitude towards the work required by mastery of these two classes of material. The reconciliation of breadth with thoroughness may be promoted through a recognition, on the one hand, of the limitations imposed by child nature on standards of thoroughness, and, on the other hand, through an appreciation of the relation that breadth holds to thoroughness.

2. *Thoroughness in the Child's Handling of his Tools.* — Thoroughness in the handling of the tools can only come from abundant exer-

cise in their proper use. The brief daily individual attention which it is possible for the child to receive from the teacher is not in itself enough to insure such abundant exercise. The motives for such exercise must exist within the child; they are most likely to be developed through culture-material so selected and presented as to arouse his interest and secure his activity.

3. *Thoroughness in the Child's Scholarly Attainments.* — Thoroughness in scholarly attainment is relative. In the case of the young child it is simply a first glimpse, a scant view. The very nature of the child precludes anything like depth of understanding or full logical coherency of thought. The acquaintance of the child with his theme should, indeed, be real and vital; the theme should take genuine hold of him; but this acquaintance is primary and necessarily germinal. As school days advance, standards of scholarly thoroughness are more and more to be sought in sets of principles that belong to the theme. Ultimately, they are to be found wholly there, as in the study of a profession; but, in the case of the child, standards of thoroughness are to be found rather in what he is capable of doing when doing his best. The only thoroughness we should ask for in the child is that he shall work in harmony with his nature and safely within the limit of his capacity.

In connection with this view of thoroughness, the following points are entitled to consideration: —

(a) The endeavor to secure thoroughness by exacting from the child definitions and logical statements that belong rather to the philosopher tends to defeat itself. The child normally gathers material in concrete ways from which classifications slowly emerge, and, finally, definitions. Definitions should come last in the child's instruction, not first; they should be the outcome of study, not the introduction to it. To make an adequate definition, nay, to understand one, one must know the field. If children are tested prematurely on what belongs to later stages of development, and, failing therein, are therefore charged with superficiality, where does the real superficiality reside?

(b) Increase in breadth of study does not involve the addition of new continuous lines of work to run parallel to old unreduced lines. It involves a reduction rather in that persistent, prolonged, intensive study along single lines that is so frequently pushed beyond the child's power to assimilate and enjoy, and thus makes room for the needed enrichment. The loss through such reduction, if there is any loss, may be more than made good by the enrichment. The thoroughness that comes from the study of abstract principles, apart from their application, is often illusive. When the study is conducted through applications, the work is more likely to be kept within the mind's range, superfluous matter is more likely to be

lopped off, wasteful digressions are more likely to be checked, suitable axes, nuclei or centres for subsequent growth are more likely to be established; and, for a seeming thoroughness that is often verbal, transient and untrustworthy, there is substituted a real and abiding, if more limited, thoroughness more in consonance with child nature. Learning without doing is often questionable learning. A little less learning with more doing is likely to result in higher attainment in the long run. The doing holds the progress of the work down to the progress of the child.

(c) Thoroughness, from the point of view suggested, lies largely in planting good seed in fruitful soil at the right time. The sprouting of the seed is not the ripening of the fruit. Much misdirected effort in the schoolroom is due to vain struggles to secure the latter when the former is all that is possible. Much misdirected criticism of the schools comes from confounding the planting season with harvest time.

(d) An idea, to be expressed, must first be grasped. It cannot be well grasped except in its obvious relations. This involves breadth. Every new relation involves greater breadth. Very much as several muskets can be stacked to stand alone when one would fall, so, frequently, several ideas that support one another can be better grasped than any one of them isolated from such support.

4. *Thoroughness in the Child's Attitude towards his Work.*—Thoroughness in connection with the child's attitude towards school work, if it means anything, means rightness of attitude; it is ethical in character. We want the child to love his work; we want him to feel the pressure of a higher and more distant interest to tide him over those trying places where the lower and more immediate interest wanes,—in short, we want him to know and feel the demands of duty. Moreover, we want him to be honest, charitable, humane, patriotic,—in short, to be all that is implied in the possession of a sterling character. This is a field in which, if the various factors of right attitude appear at all, we need not disturb ourselves much about the strength or intensity of such factors. Let them be duly exercised, in full confidence that, like the mind in its other functions, they will grow strong under such exercise. The beginnings of rightness of attitude in the child are best assured by respecting his mental trend towards culture-subjects, and leading him to see from the start that reading, writing and arithmetic are not so much ends in themselves as they are means to the attainment of higher ends.

RESOLUTIONS OF EDUCATIONAL ASSOCIATIONS.

Resolutions of Educational Associations.—Many of our educational movements exist at first as a kind of unrest, a feeling that something is wrong and needs to be set right. Then

come queries, comparisons of views, discussions, out of which there gradually emerge certain opinions that seem to command general assent. The time is ripe for having them formulated in some authoritative way, and commended to the public as policies of action. The work of giving standing and dignity to such policies devolves naturally upon our leading educational associations. Indeed, much of our legislation has issued from preliminary work of just this kind.

Contracts with Teachers. — One of the disheartening things to school authorities in low-salaried communities in their efforts to improve the schools is their inability to retain their best teachers. The more successful they are in finding good teachers the surer they are to lose them. They would like to retain them at least a year. If changes must come in term time, they would like to have at least a reasonable time in which to adapt themselves to such changes. Strong protests are frequently made by towns against the so-called “piracy” of teachers to which their wealthier neighbors resort, and to the alleged indifference of teachers to assumed obligations when chances for advancement appear. On the other hand, the teachers claim that, if school committees may dismiss them at any time without disclosure of reasons (section 30, chapter 44, Public Statutes), they themselves may fairly claim the privilege of resigning at any time, in the absence of definite contracts to the contrary, especially if they disclose good reasons for so doing. If something is due the schools, they assert, something is also due the teachers. If teachers are to show self-sacrifice in standing by their posts in the face of better offers elsewhere, committees should show a similar spirit of self-sacrifice in efforts to make those posts more attractive. Chances for promotion must be seized while they are open. Every advancement of a teacher based on merit is felt for good by all teachers. It is the very life of the profession that the demand for superior skill shall be sharp and aggressive. It means more of hope, ambition, emolument and honor for teachers; and all this means more of high and profitable service for the schools. The general movement of transfer and promotion is an inevitable one. Some of its immediate evils, however, can be reduced if the employers of teachers will show a little more consideration for the schools from which they are taken. At a meeting of the New England

Association of School Superintendents, held in Boston May 13, 1898, the following report was accepted and adopted, the members present pledging themselves to an observance of its conditions : —

Your committee, appointed Nov. 5, 1897, to consider the subject of contracts with teachers, have considered the matter, and submit the following report : —

It is our judgment —

(1) That no attempt should be made by superintendents or those in charge of school affairs to induce teachers to leave their positions immediately before the beginning of the fall term or during the first and the last month of the school year.

(2) That no attempt should be made to induce teachers to leave their positions except after notice of four weeks.

(3) That no teacher should be considered an available candidate for a new position until he shall have served at least one year at his present position, unless he has made it a condition of acceptance that he may leave at any time after proper notice.

(4) That teachers should be mindful of the interests of the schools in which they teach, and be unwilling to leave their positions unless released by those who have employed them.

(5) That teachers should be unwilling to leave positions wherein they have not served at least one year, unless they have made it a condition of acceptance that they may leave at any time after proper notice.

(6) That it is the duty of school authorities, after notice of four weeks, to release teachers who can materially better themselves, unless there are unusual circumstances making such a change exceptionally injurious to the schools.

(7) That we deprecate any contract with teachers which is made mainly for the benefit of district, town or city, whereby school authorities seek to obligate teachers to a greater degree than they obligate themselves.

Respectfully submitted,

CLARENCE A. BRODEUR.

WALTER H. SMALL.

THOMAS M. BALLIET.

Action of the New England Association of School Superintendents on Legislative Enactments. — At a meeting of the New England Association of School Superintendents held in Boston Nov. 11, 1898, the following report, prepared by the State

superintendents of schools for New England, was accepted and adopted:—

The committee on legislative enactments, appointed by the New England Association of School Superintendents, begs leave to say that the school conditions of the six New England States vary widely; that it can scarcely recommend any progressive legislative school policy which has not already been anticipated by one or more of these States,—scarcely any that shall not be deemed considerably in advance of public sentiment in others of these States. It seems wise to the committee, for the present, to set forth, in a general way, certain educational policies which the several States should enter upon, if they have not already done so, or take pains to perfect, if they have already in some measure adopted them.

In the conviction that the proper schooling of youth is not only an individual, a family and a local interest, but a State interest as well, the committee, in behalf of the association, respectfully commends to the several Legislatures of the New England States the adoption or the perfection, as conditions may require, of the following policies:—

1. That of supplementing local agencies—whatever they may be—that exist for the enforcement of the compulsory school attendance laws with efficient helps from the State, either through a State attendance officer or officers, or in such ways as shall seem best adapted to quicken and strengthen such local agencies in their important duty.

2. That of insuring for the children of the smaller and feebler towns in each State, so far as possible, as good facilities both for elementary and for secondary education as those now enjoyed by the more favored children thereof, the State to supplement local effort in providing such schooling with due regard to local interest in the schools and to local self-reliance in maintaining and managing them.

3. That of insisting on some minimum standard of professional training for the teachers of the public schools, by requiring that, as a condition of appointment, they shall either have attended suitable normal and practice schools, or that they shall have prepared themselves in ways of equivalent effectiveness.

4. That of encouraging, and, ultimately, of requiring the appointment by school committees of superintendents of schools especially trained and qualified to exercise that direct educational oversight of the schools that experience has found to be so helpful to efficiency therein; such small towns as are unable independently to employ superintendents to be united into districts for such employment, and to be sufficiently aided by the State to insure the success of the plan.

The committee calls attention to the solidarity of the four policies here recommended. They belong together, and seem essential to a strong and liberal public school system. To the extent to which children grow up in ignorance and idleness, or weak schools abound, or inefficient teaching prevails, or schools drift along without wise educational direction, to this extent the interests of children, of parents, of towns and of the State are needlessly sacrificed. The money supposed to be saved by withholding public support from businesslike policies that are fitted by nature and known by experience to increase the efficiency of the public schools may be lost, and often is lost many times over, in the disastrous consequences of resultant inefficiency. The intellectual and moral losses of such inefficiency cannot, of course, be measured.

The committee begs to say, in conclusion, that each of the foregoing policies has legislative endorsement, in part or in full, in one or more of the New England States; that no one of these States, however, has fully endorsed them all; that there is room in every State for improvement in such of these policies as it may have adopted; and that each State, therefore, may gracefully give suggestions to its sister States by which they may profit and as gracefully receive profitable suggestions from them in return.

(Signed)

FRANK A. HILL,
W. W. STETSON,
FRED GOWING,
MASON S. STONE,
THOMAS B. STOCKWELL,
CHARLES D. HINE,

Committee on Legislative Enactments.

Nov. 11, 1898.

Mr. Hine of Connecticut, though assenting to the report as a whole, believes that satisfactory results in enforcing the compulsory school attendance laws are not attainable except through the direct and vigorous action of the State. It is undeniably true that leaving such laws to be enforced by the local authorities, particularly in small towns, amounts in many cases to practically no enforcement at all, of which abundant illustrations can be given in Massachusetts. Connecticut, with her State attendance officers, sets an example of efficiency which her sister States would do well to follow.

Resolutions of the Massachusetts Teachers' Association. — At the annual meeting of the Massachusetts Teachers' Association, held at Springfield, Nov. 25 and 26, 1898, the following reso-

lutions, presented by a committee of which Thomas M. Balliet was chairman and John T. Prince, Etta Austin Blaisdell, Charles S. Chapin and Homer P. Lewis were members, were accepted and adopted: —

1. *Resolved*, That a minimum requirement of qualifications for teaching in the public schools be established by State law.

2. *Resolved*, That the State should bear the additional expense of carrying into effect such requirements, though not in a way tending to lessen local taxation for school purposes.

3. *Resolved*, That, in the judgment of this association, the time has arrived when it is expedient and desirable that town or district supervision of schools be made compulsory throughout the Commonwealth.

4. *Resolved*, That a law should be enacted prohibiting a teacher from serving as a member of the school committee which employs him.

5. *Resolved*, That the chair be authorized to appoint five members of this association, to serve as a committee on school legislation until the next annual meeting, whose duty shall be to urge the legislation recommended in these resolutions.

6. *Resolved*, That this association adopt for its official publications the amended spelling now used in the official reports and documents of the National Educational Association.

7. It is believed by your committee that the utility of this association is less than it can and should be, that the lack of adequate income is one source of weakness, that the present system of raising funds is responsible for this and should be changed; therefore be it

Resolved, That the Board of Directors is hereby instructed to recommend to the association, at its next meeting, some feasible plan for increasing the regular income to an adequate amount.

8. *Resolved*, That the president be empowered to appoint a committee of three members of this association, to act with a committee of three persons to be appointed by the Massachusetts Medical Society and a committee of three persons to be appointed by the Massachusetts Woman's Christian Temperance Union, after both such committees have been created, for the purpose of considering a course of study in physiology and hygiene, including special instruction as to the effects of alcoholic drinks and of stimulants and narcotics on the human system, and to report the results reached to this association at its next annual meeting.

The Work of the Agents. — There being only three agents now, in addition to the agent for the promotion of industrial

drawing, where two or three years ago there were five, the territory assigned to each is necessarily larger, the number of towns and schools to visit greater, and the number of calls upon their attention more numerous. They cannot do any more work now than formerly, because they worked up to their full capacity with their smaller assignments. If, therefore, their visits to particular towns become more infrequent and their declinations of requests for service more numerous, it is simply because neither their time nor their industry can expand with the expansion of their territory and duties. Their assignment of counties and schools is as follows : —

AGENTS.	Counties.	UNDER SUPERINTENDENTS.		NOT UNDER SUPERINTENDENTS.	
		Towns.	Schools.	Towns.	Schools.
John T. Prince, .	Barnstable, Bristol, Dukes, Nantucket, Norfolk, Plym- outh.	98	2,052	25	213
G. T. Fletcher, .	Berkshire, Franklin, Hamp- den, Hampshire.	104	1,633	37	240
J. W. MacDonald, .	Essex, Middlesex, Suffolk, Worcester.	151	6,173	25	261
Henry T. Bailey, .	The State,	353	9,863	87	714

Each agent keeps a record of the work done by him for each day of the school year. The following statement, whose details are either exact or closely approximate, gives an idea of the quantity of work done by them during the year, but of course the quality and value of that work do not lend themselves to statistical presentation : —

For the Year 1898.

AGENTS.	Addresses.	Towns visited.	Schools visited.	Business Letters.	Miles travelled.
Mr. Prince,	97	67	280	850	9,500
Mr. Fletcher,	90	92	590	1,000	8,750
Mr. MacDonald,	118	67	235	860	12,000
Mr. Bailey,	34	27	37	867	2,500
Mr. Sargent,*	43	30	30	75	2,500

* Employed on part time only.

The letters do not include circulars calling for information or announcing institutes.

Mr. Bailey, having served the State efficiently for ten years, was granted leave of absence by the Board for a portion of the year, for foreign travel. While his trip was primarily for change and mental refreshment, the special interests of his work as supervisor of art instruction in the State were kept in mind. Representative public schools, where drawing is taught, were visited in Rome, Berlin, Paris and London, and an interesting account of some things noted there will be found in his report. Moreover, such careful study was made of the art of the old world as the brief time at his disposal permitted, some of the fruits of which will undoubtedly come to the teachers and schools of the State. Mr. L. Walter Sargent has been employed at intervals to assist Mr. Bailey in his work.

The agents endeavor to be considerate and tactful in dealing with school conditions. They know better than most men, they feel more keenly than most men, that, if bad school conditions prevail in a town, the only hope of improving them lies in persuading the town to take up the work. They must work with the authorities, and not against them; be patient with small beginnings, and not ask for too much; win the people to better things, and not seek to force them. Still, with all their care there is always the risk of exposing themselves to adverse comments if they tell the truth, no matter how palatable they may try to make it. Indeed, if they did not fearlessly do this, they would not be true to the policy they represent,—the distinctly announced State policy “of arousing and guiding public sentiment in relation to the practical interests of education” (section 5, chapter 41, Public Statutes). The value of the work done by the agents of the Board since the beginning of their employment is great and enduring. It cannot be measured in dollars and cents; if it were so measured, it would far surpass the modest sum thus far expended for the service.

Recommendations of the Secretary.—The recommendations of the secretary naturally divide into two groups,—one needing immediate attention, and the other, while meriting such attention, calling for the exercise of judgment as to the most opportune time for giving it. To the first group belong the following, the reasons for which are given elsewhere in this report:—

1. That provision be made for printing and sending out to the several towns of the State the State registers and census blanks, as required by section 14, chapter 496, Acts of 1898.

2. That provision be made for lengthening and enlarging the work of the two summer institutes now conducted by the Board.

3. That provision be made for holding a State exhibit of the drawing of the public schools some time during the year.

4. That provision be made for the proper care of the Educational Museum.

To the other group belong what may be called standing recommendations. One or two of them, at any rate, have been standing since the days of Horace Mann. All of them when originally made were in advance of public opinion; perhaps some of them are in advance of it to-day. That public opinion is working up to them cannot for a moment be doubted. If a measure believed to be necessary to the highest welfare of the schools is defeated in one Legislature, it may not be wise to bring it up again in the next; but it is not only legitimate to keep it before the public, it is a duty to do so. The school victories of Massachusetts have been wrested from innumerable defeats. Struggles that end in defeat are not without their blessings; they are certainly educative. Vanquished measures have their kinks taken out of them, and the public comes in time to know them better. By and by the measures and the public become reconciled to each other, and new milestones begin to mark the highway of school progress.

These standing recommendations relate chiefly to legislation in behalf of the following policies:—

1. That of a more vigorous and general enforcement of the school attendance laws by means of State attendance officers.

2. That of requiring some minimum of professional preparation from new teachers appointed after a certain date.

3. That of requiring the supervision of all schools by superintendents specially appointed for the purpose.

4. That of insisting on good schooling everywhere without reference to local ability to meet the necessary expense thereof, and of providing adequate State help to towns whose local efforts need to be supplemented for the purpose.

As to the first policy, Connecticut leads us. As to the second,

New York is in advance of us. As to the third, our policy of supervision is thus far the best in the Union, and needs only to be clinched by making it universal. As to the fourth, Massachusetts leads the Union in basing the support of public schools on local taxation, — a principle so favorable to sturdy development that she must never abandon it; but in granting State help to the schools she is behind most of the States of the Union, — so far behind, indeed, that, though she has some of the best schools in the land, there still linger within her borders some of the poorest. We should not rest in our efforts until we can offer the boys and girls of sturdy New England stock in our poorer country towns as good teaching and schooling facilities as we now offer the boys and girls, many of them of foreign parentage or birth, that throng our cities.

REPORTS OF THE STATE BOARD OF EDUCATION.

The Missionary Spirit of the Earlier Reports. — The annual reports of the State Board of Education now number sixty-two volumes. The series is unbroken from 1837. The earlier reports are aglow with a missionary spirit, — a spirit not extinct to-day, though it has lost its pioneer aspect. Large numbers of the towns had been sinking into a kind of educational lethargy. It was necessary to arouse them. This was the kind of work which Horace Mann was peculiarly fitted to do; this was the work he gallantly did. While recognizing the excellencies, present and possible, of the school system, he attacked its weaknesses with an ability and fearlessness that astonished both friend and foe. To his famous reports the reader should go for the finest expositions extant of the foundations of our Massachusetts school policy.

Results chronicled in Later Reports. — The later reports of the Board chronicle results that Horace Mann never dreamed of, — the fruits largely, which he did not live to see, of the marvellous stimulus and enrichment which he gave to the schools. When, for example, he so mercilessly arraigned the three thousand schoolhouses of the State for their cheerless, dilapidated and disreputable condition, scarcely a hundred of them “erected in a style superior, even if equal, to that of the very poorest public buildings of any other kind in the very poorest and most sparsely populated portions of the Commonwealth,” of

many of which he predicted, with as much wit as truth, that, "however long they may be able to endure the weight of public opinion, their own weight they cannot long sustain," he could not have foreseen the time when the State should have actually invested in public school buildings the surprising sum of \$40,000,000, to say nothing of \$20,000,000 more in its colleges and private schools. Had he been told, when he alluded to Boston's "erection of twelve large and elegant school-rooms," of which "one house alone will cost by estimate \$20,000,"—an unprecedented exhibition of public liberality,—that in our time Boston would have scores of school buildings costing from \$100,000 to \$300,000, a few still more, and "one house alone" more than half a million, he would have said, "Impossible!" And when in his twelfth report, at the close of his distinguished service for the State, he took great pride in saying that during the twelve years of that service the State had expended the enormous sum of \$2,000,000 in building new schoolhouses and renovating old ones, what would have been his amazement had he been permitted to peer a half-century into futurity and read from the sixty-second report of a successor that the State had expended for the same purpose twice that sum in a single year! Or think again of the indefatigable secretary, in despair of public support, pleading with private persons for \$1,500 to save the feeble and tottering normal school policy of the State, even offering therefor with mingled pathos and humor "a seat in the kingdom of heaven." Could a vision in that dark hour have gloriously burst upon him of ten normal schools, superbly housed, equipped and maintained by a convinced and cheerful Legislature, dependent no longer on the highways and hedges of the school system for so many of their students, but thronged with the graduates of high or equivalent schools, surely he would have folded his arms and said as did Simeon of old, "Lord, now lettest thou thy servant depart in peace."

The Consistency and Unity of the Views held by past Secretaries.—As I read the reports of my predecessors, I am impressed by the consistency and unity of their views. They were not five men with five codes of educational principles, but five men with a single code. There are no harsh discords in

their fundamental notes. The concord comes, not because of a set purpose to hang together regardless of convictions, but because of a sturdy grasp by each of the spirit, the aims and the needs of the Massachusetts school idea. If five men interpret that spirit correctly, formulate those aims and diagnose those needs successfully, they are pretty likely to agree, subject to changing conditions, upon the grander features of an educational policy. Mann, Sears, Boutwell, White and Dickinson have never wavered in urging principles and policies of which the following, gathered in a casual turning of the leaves of their reports, may serve as illustrations:—

1. Education is more than an individual, family or school district interest; it concerns the town and the State.

2. The schools do not exist to furnish places for the relatives and friends of the appointing power or for the residents of a locality; they exist for the welfare of the children and the community.

3. The supreme need of any school is that of the thoroughly competent and wise teacher.

4. No pains should be spared by the State to train teachers for their responsible work.

5. School buildings should be the highest expression of sanitary and educational wisdom as well as of civic pride.

6. The avenues of ascent through the schools even to the college doors should be open and free to the poorest child. Secondary as well as elementary education should therefore be fostered.

7. The prosperity of the State, materially, politically, morally, is vitally related to the prosperity of the schools.

8. It is the right of children to have their childhood reserved for its natural employments,—play, recreation, schooling and such lighter forms of work as children can do without loss of childhood's privileges. Thrusting them prematurely into factory life or any life akin to that is an abuse of children, and an injury to the State not to be tolerated.

9. Habitual absenteeism or truancy works harm both to the child and to the State, and should be stopped.

10. The smallest and poorest towns should have good schooling as well as the largest and wealthiest.

11. The State should insist in its laws on such schooling.
12. The main dependence of the schools for support should be local taxation.

13. Where local taxation goes as far as it ought, and yet fails to provide money enough to insure good schools, the State should aid in securing the needed efficiency.

14. By as much as human minds and souls transcend in value the products of human hands, by so much does the need of the schools for competent supervision transcend the need of the factory. No sane corporation would let its workshop drift, and no sane community should let its schools drift, without a directing and unifying head.

And so the list might be extended. There is not one of the foregoing principles or policies to which the present secretary does not heartily subscribe. There is not one of them which has not, in some shape or to some extent, been realized in practice; not one which has not in some shape or to some extent been violated in fact; not one of them, therefore, which the people can afford to drop from earnest thought and ignore. And the same might be said of almost any principle or policy that has commended itself in the past to the secretaries of the Board. Differences of attitude, so far as they may exist, relate largely to details or are due to changed conditions.

A Famous Survey of our Public Schools reproduced.—Notwithstanding this unity of educational policies and the great results that have sprung even from their partial acceptance, — results never so conspicuous as when one contrasts the school work of sixty years ago with that of to-day, — there have been from the beginning people more open to the weakness of the schools than to their strength, more swayed, it would seem, by the inefficiency which arrests their attention than by the efficiency which fails to capture it. And so it has been necessary from time to time to pause in the turmoil of discussions and criticisms, to withdraw the vision from the roughnesses that obtrude themselves here and there on the nearer view, to take a square look at the system as a whole as one views a planet from afar, and to report the larger aspect for the discomfiture of the sceptic and the reassurance of the believer. In the eighteenth report of the Board by Barnas Sears there

is given at length one of these larger and more distant views of our school system, that will bear partial reproduction. It is in the shape of extracts from "Evidence as to the Religious Working of the Common Schools in the State of Massachusetts, with a Preface by the Hon. Edward Twisleton, late Chief Commissioner of Poor Laws in Ireland. London: 1854." This evidence is found in the testimony of twelve citizens of Massachusetts, eminent even then, but since then become more eminent still. It was presented to the British Parliament in 1852, and, with other matters bearing on the superior education of our common people, was instrumental in stimulating certain progressive legislation by that body. Mr. Twisleton tells how he secured this evidence, as follows:—

In parts of the years 1849–50, I travelled in various States of the North American Union, and I was especially struck by the high standard of intelligence and the general mental superiority, which prevailed among the inhabitants of New England. In considering the causes of that superiority, it seemed impossible to account for it merely by peculiarities in race, religion, or political institutions. . . .

On reflection, various circumstances led me to connect that superiority with the system which has been in force in New England above two hundred years, requiring by law every township to make provision for the education of the children within it; and when I returned to England, in the summer of 1850, I frequently, in conversation, called attention to that system, and, in contrast with it, to the defective arrangements for instruction in England, as a source not only of national discredit, but likewise of comparative national weakness. I found, however, an impression generally existing that the New England system of instruction must, of necessity, be either sectarian or irreligious; and, although well aware that this impression was at variance with facts, I perceived that it was hopeless to endeavor to remove it merely by the statements of a cursory traveller.

In the autumn of 1851 I paid another visit to New England; and, as it struck me that the statements, on this head, of eminent New Englanders known in England might be interesting and instructive, I issued the accompanying printed circular of questions, which was intended to elicit information as to the effects, in a *religious* point of view, of the New England system of free schools. Want of time subsequently induced me to restrict my inquiries more immediately to the State of Massachusetts; but I received statements from some

of the leading statesmen and authors of that Commonwealth, all pointing to the same conclusion, and tending to show : —

First. — That the New England system of free schools is not sectarian in its tendencies.

Secondly. — That it is not irreligious.

Thirdly. — That, indirectly at least, if not directly, it is religious, in the sense of being favorable to the cultivation of the religious sentiments and to the promotion of morality.

Fourthly. — That by means of Sunday schools, combined with the teaching of parents at home and instruction from the pulpit in church, the children of the free schools are, for the most part, taught the peculiar tenets of the various religious denominations to which they respectively belong.

Fifthly. — That the system of free schools in New England is effective in giving instruction to the children of the poorest classes, and is deserving of approbation.

Mr. Twisleton then proceeds to give his list of authorities, which is here reproduced precisely as given, — a list that cannot but arrest the attention of people to-day and awaken an interest in the views to which they gave their learned sanction : —

1. Hon. Daniel Webster, late Secretary of State, and Senator in Congress from Massachusetts.

2. Hon. Edward Everett, late American Minister in England.

3. Hon. George Bancroft, late American Minister in England.

4. The Right Rev. Dr. Eastburn, Protestant Bishop of Massachusetts.

5. Hon. William Appleton, late Representative of Massachusetts in Congress.

6. Hon. R. C. Winthrop, late Representative of Massachusetts in Congress.

7. Hon. F. C. Gray, late Senator of Massachusetts, and author of a work on "Prison Discipline."

8. Hon. G. S. Hillard, late Senator of Massachusetts, and author of a work called "Six Months in Italy."

9. William H. Prescott, Esq., the Historian.

10. J. Sparks, Esq., President of Cambridge University, and Historian.

11. George Ticknor, Esq., author of "History of Spanish Literature."

12. Henry W. Longfellow, Esq., the Poet.

Then follow replies by each of these distinguished men to the following five questions submitted to them by Mr. Twisleton : —

1. Have you reason to believe that the system of instruction adopted in the common schools of New England interferes with the special religious tenets of any particular denomination of Christians?

2. Is it within your knowledge that, apart from the common schools, the children educated in them do practically receive instruction in the tenets of the religious denomination to which they respectively belong?

3. If they do receive such instruction, what are the agencies by which it is communicated?

4. In your opinion, is the system of instruction pursued in the common schools of New England indirectly favorable to the cultivation of the religious sentiments and to the promotion of morality?

5. Generally, do you approve, or do you disapprove, of that system? And what are the main grounds on which your approbation or disapprobation is based?

It was upon these replies that Mr. Twisleton based his five conclusions already quoted. It is not proposed to reproduce them here so far as the first four questions are concerned. They may be seen in full in the eighteenth report. The replies to the fifth question are so pertinent, they give so fine an illustration of the esteem in which the public schools of fifty years ago were held, they bring out so reassuringly the argument for their existence and support, they come from such eminent men, that they are richly worth reproducing from time to time, not only for their historic value, but for the service they once so ably rendered and are still fitted to render to the cause of public education.

The first reply is that of Daniel Webster : —

I have been familiar with the New England system of free schools for above fifty years, and I heartily approve of it. I owe to it my own early training. In my own recollection of these schools there exists, to this moment, a fresh feeling of the sobriety of the teachers, the good order of the school, the reverence with which the Scriptures were read, and the strictness with which all moral duties were enjoined and enforced. In these schools, or it may be partly by my mother's care, I was taught in the elements of letters so early that I never have been able to remember a time when I could not read the

New Testament, and did not read it. Many moral tales, and instructive and well-contrived fables, always so alluring to childhood, learned by heart in these schools, are still perfectly preserved in my memory. And, in my own case, I can say that, without these early means of instruction ordained by law, and brought home to the small villages and hamlets for the use of all their children equally, I do not now see how I should have been able to become so far instructed in the elements of knowledge as to be fit for higher schools.

In my opinion, the instruction communicated in the free schools of New England has a direct effect for good on the morals of youth. It represses vicious inclinations, it inspires love of character, and it awakens honorable aspirations. In short, I have no conception of any manner in which the popular republican institutions under which we live could possibly be preserved, if early education were not freely furnished to all, by public law, in such forms that all shall gladly avail themselves of it. Although a little beside the immediate object of these inquiries, I may be permitted to add that, in my judgment, as the present tendency of things, almost everywhere, is to extend popular power, the peace and well-being of society require, at the same time, a corresponding extension of popular knowledge.

Reply of Edward Everett : —

I think our school system, in theory, perfect ; in practice, it varies, of course, with local circumstances. I do not know much personally of the schools, except in this neighborhood, where they are excellent.

The great merit of the system is, that it is a public provision for the education of all the children. The schools are so good that the children of the wealthy are sent to them from choice ; hence there is nothing eleemosynary in their character. They are free and gratuitous, without being in reality or appearance charitable. As the burden of taxation falls on the rich, the children of the poor get a good education gratuitously, and all classes mingle together in the school-room.

This would be good, I think, in any country ; in ours it is an essential part of our general social system. I send my child to the public school in Cambridge because it is the best within my reach. If there were a private school where he would be better taught, I might think it my duty to send him to it ; but I should regard this as an evil.

Reply of George Bancroft : —

The common school system of instruction in New England has been of incalculable service to the promotion of morality, and makes the

whole population susceptible of a higher degree of knowledge on subjects connected with religion. I could hardly use language strong enough to express my sense of the benefit done by the common school system to the character, vigor of enterprise, morality, industry, general self-respect, love of liberty, respect for law, and attainments in religious knowledge, of the people of New England.

Reply of Manton Eastburn : —

Although I individually should prefer arrangements under which the tenets of my own church were directly taught in the common schools, yet, on the whole, I approve of the present system, because it insures the means of providing a more efficient system of instruction than could permanently be maintained for all the children of the Commonwealth in any other way.

Reply of William Appleton : —

Generally, I do approve of the system, believing it to be better than any other within my knowledge.

Reply of Robert C. Winthrop : —

I should find it almost as difficult to state the main grounds for my unqualified approbation of our common school system as I should to state the reason for cherishing the common bounties and blessings of Providence, — the light, the air or the seasons. I cannot conceive of our getting along without them, under a political system like ours. They are a vital part of our government; they are our most efficient police; our institutions would not enable us to provide any substitute for them. But, apart from any consideration connected with the character of our government, they seem to me the only effective means for promoting the intelligence, developing the energies and elevating the character of a whole people. Any voluntary system of education must leave great numbers of children untaught. It may be that among these neglected children are the persons whose natural capacities would have enabled them to do most for their fellow men; who, if their faculties could have been cultivated and developed, might have been foremost in art or science, in invention or enterprise, in literary, civil or military pursuits. It is certain that our American common schools have given their earliest, and sometimes their only, education to not a few of our most distinguished men in all conditions of life. Universal education, freely offered to all, and of which all are, in a manner, constrained to partake, secures to society the benefit of all

the powers which God has bestowed upon all its members, and thus gives the strongest impulse to the progress of human civilization and improvement. If New England has made rapid strides in any thing good or great or valuable since its settlement, I think it has been primarily owing to her common school system.

Reply of F. C. Gray : —

I do approve of it, and for these reasons, among others : because it is highly important, for the security of society, in all free countries, and most so in the freest, that the children of all sects, classes and conditions, since they must mingle together subsequently in the conflicts of life, should, from their earliest years, be intimately associated in similar pursuits (as they are in school) on terms of perfect equality ; because I believe that religion, like almost everything else, is best taught in a school devoted to that single object, and see no more reason why it should be taught in connection with reading, writing, arithmetic and the other branches of a common school education, than with any accomplishment, trade or profession, its alliance with the former having probably originated in times when even the mere rudiments of learning were taught only by ecclesiastics ; because, if taught it by those who are now associated in their minds with the daily drudgery and discipline of the schoolroom, and whom, though young, they look on with respect, and especially if thus taught in the church and on Sunday, children will be likely to regard this study as something apart from their week-day tasks, and more sacred ; because the Sunday-school teachers are themselves benefited by the lessons they give no less than their pupils are, since the best mode of acquiring a thorough knowledge of any subject, and a strong interest in it, is to teach it, and religious education, as it should begin earlier, will thus be continued also later than any other, as it should be ; because, while the use of the Bible and daily prayer, in which all may join without tasking their minds or their memories, tends to excite veneration for the Scriptures and for the Deity thus invoked, it does not seem to me that to omit the teaching of the tenets of any one religious sect, however true, in the common school, if they are properly taught elsewhere, has any more tendency to create indifference to them than the omission to teach them in the same schools with drawing, music or dancing. It is only on the assumption that they ought to be taught in common schools, and that children should be made to believe so, that their omission could be deemed by them, or by anybody, an evidence of neglect, and thus countenance indifference ; which amounts to no more than this, that, assuming they ought to be taught, they ought not to be omitted.

Reply of George S. Hillard : —

Our system of public schools is the natural growth of our soil and the necessary complement of our system of self-government. I cannot conceive of the permanence of our institutions without a system of popular instruction. When, therefore, I am asked if I approve of the system, it is as if I were asked whether I approve of laws and magistrates, of marriage and of property. The system itself seems to me nearly perfect ; but, in its practical application, much will depend upon the character of the teachers themselves, and many degrees of excellence will be the result. In a country like ours, with no established religion, and a multitude of sects watching each other with jealous solicitude, it is quite impossible that the system itself should provide for distinct religious training, for religious training must mean training in what the teacher himself calls religion. And this watchful supervision of one sect over another also renders it impossible that a teacher should successfully attempt to imbue the pupils intrusted to him with his own peculiar views.

There is one good and not very obvious result of our system of public schools, which has always struck me as of some importance. In democratic communities, where all men are equal before the law, there is always a sense of heart-burning likely to be engendered from an observation of the inequality of fortune and condition among men. The remedy to this state of feeling is to be sought in the cultivation of a genuine sympathy on the part of the more favored towards the less favored classes ; and nothing will more tend to produce this sympathy than that the children of each should attend, for a time, the same schools : a man cannot but feel a lifelong kindness of heart towards one with whom, when both were boys, he sat upon the same bench and learned the same lessons. That this good result should be obtained, it is requisite that the schools should be of such excellence that the more favored classes should be willing to send their children to them, which in many, probably most, places is the case.

Reply of W. H. Prescott : —

I believe no other system of instruction would be so favorable to the education of the great body of the people ; and such an education is of the last importance to a republican government like ours. If the system were made to comprehend religious instruction, this instruction must necessarily be accommodated more or less to the doctrines of some particular sect. This would render the school inaccessible to those children whose parents were unwilling to expose them

to the risk of imbibing such doctrines. On the present plan, all of every denomination may receive an education fitting them for the duties of this life ; and, while no one is taught any special religious tenets, all are taught that reverence for religion which is a good basis for those particular tenets which may be inculcated elsewhere.

Reply of Jared Sparks : —

A system may fairly be judged by its results. In this respect, the system of common schools in New England claims unqualified approbation. It has existed two hundred years, and I am not aware that the people of any country or community have exhibited the fruits of moral and religious culture in a more eminent degree than the inhabitants of New England.

Reply of George Ticknor : —

I believe the system of the free schools of New England to be a wise system of moral police, to support which the property of all is rightfully taxed ; and I will add — having lived two or three years in Germany, and longer in other parts of Europe — that I believe this New England system to be more effectual than any system of teaching has yet been made elsewhere to secure the well-being of a State. And, further, that such a persuasion of the inherent benefits of our free schools is the settled conviction of a vast majority of our people, is, I conceive, made certain by the fact that, while the laws of Massachusetts require the several towns, in proportion to the number of children they may contain, to provide to a certain extent for the education of all the children within their limits, hardly a town in Massachusetts — perhaps not one of above three hundred into which the State is divided — fails annually, by a popular vote, based on universal suffrage, to provide for such education to a greater extent, and at a greater cost, generally much greater, than is required by law. This spontaneous, uniform, and, so to speak, universal assent of the voters, in a population of nearly a million, annually asked for, and annually given afresh, in the shape of a somewhat burdensome tax laid by themselves upon themselves, seems to me, considering the general intelligence of these voters and the thorough trial of two centuries to which the free schools amongst us have been subjected, to be a proof of the excellence and efficacy of the system as decisive as can be asked.

My remarks have generally been limited to Massachusetts, my native State ; but they may be applied to all New England with little

or no modification, certainly with none as to the instruction of children in the special religious tenets of any particular denomination of Christians.

Reply of Henry W. Longfellow : —

I very heartily approve of the system, on the ground that by it the means of education are given freely to every one ; and, however poor a man may be, he feels that the education of his children, to a certain point, is secured to them, and that good morals will be taught them, and their religious sentiments cherished and cultivated.

Since these men gave their impressive testimony to the worth of the public schools it has been hard to keep pace with the measures of the public to increase this worth. It is certain that the schools were never so well off, whatever deficiencies still exist, in all that relates to buildings and equipment. It is certain that courses of study were never richer and more attractive than to-day, that teachers were never more thoroughly prepared for their work, that text-books were never more sensible and inviting, that methods of instruction were never sounder, and that public interest in the schools, as shown in discussions of their problems and appropriations for their support, was never keener and more intelligent. In brief, whatever the wealth of privilege offered the child to-day, the twelve witnesses to whom reference has been made would never have ventured, with all their prophetic view, to predict it. All this gain is a fine tribute to the liberality and ambition of the men and women who attended the schools of a generation ago. Now that they are in control of public affairs, they mean that their children shall have greater privileges than they themselves enjoyed. Whether the boys and girls of to-day will as fully rise to the height of their brilliant opportunities as their parents before them, it might be interesting to know, but it is idle now to discuss. Before all teachers of youth and all youth who are taught, whatever their accomplishment, it is still necessary for the Commonwealth to bear up, like a pillar of cloud by day and of fire by night, the exalted ideal of the fathers, always beckoning to attainment but never fully achieved. The words of this ideal should be as conspicuous in every school-

room as the flag that floats above its roof. They have been quoted again and again in the reports of the Board, and are here quoted once more, as the goal toward which the public schools should never cease to advance : —

It shall be the duty of the president, professors, and tutors of the university at Cambridge and of the several colleges, of all preceptors and teachers of academies, and of all other instructors of youth, to exert their best endeavors to impress on the minds of children and youth committed to their care and instruction the principles of piety and justice and a sacred regard to truth ; love of their country, humanity, and universal benevolence ; sobriety, industry and frugality ; chastity, moderation and temperance ; and those other virtues which are the ornament of human society and the basis upon which a republican constitution is founded ; and it shall be the duty of such instructors to endeavor to lead their pupils, as their ages and capacities will admit, into a clear understanding of the tendency of the above-mentioned virtues to preserve and perfect a republican constitution and secure the blessings of liberty as well as to promote their future happiness, and also to point out to them the evil tendency of the opposite vices (section 15, chapter 44, Public Statutes).

FRANK A. HILL,

Secretary.

FINANCIAL STATEMENTS.

INCOME OF MASSACHUSETTS SCHOOL FUND.

1898.

Cash on hand Jan. 1, 1898,	\$90,018 51
Income for 1898,	204,612 61
	<hr/>
	\$294,631 12
Paid cities and towns in 1898,	97,803 70
Paid educational expenses in 1898,	102,306 30
	<hr/>
	\$200,110 00
Cash on hand Dec. 31, 1898,	94,521 12
From which there is to be paid to cities and towns in 1899,	94,521 12
The Massachusetts school fund amounted, Dec. 31, 1898, to	4,170,548 14

The following shows the amount of the principal of the school fund as it stood at the close of each of the past eight school years, and the income for the same years : —

YEAR.	Principal.	Income.
1891,	\$3,655,761 85	\$138,625 68
1892,	3,655,761 85	167,229 55
1893,	3,670,548 14	167,258 23
1894,	3,770,548 14	167,210 54
1895,	3,870,548 14	172,729 65
1896,	3,970,548 14	175,165 64
1897,	4,070,548 14	189,808 71
1898,	4,170,548 14	204,612 61

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION.
APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS.

APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS.		CR.	
1898.	1899.		
Expended for Bridgewater Normal School,	\$40,052 80	Appropriation for 1898 (chapter 159, Acts of 1898),	\$233,883 00
Expended for Fitchburg Normal School,	35,344 67	Received from city of Fitchburg,	10,594 67
Expended for Framingham Normal School,	24,499 64	Deficiency,	6 73
Expended for Hyannis Normal School,	22,474 80		
Expended for Lowell Normal School,	25,713 59		
Expended for North Adams Normal School,	24,934 50		
Expended for Salem Normal School,	25,024 63		
Expended for Westfield Normal School,	24,989 95		
Expended for Worcester Normal School,	21,449 82		
	<u>\$244,484 40</u>		<u>\$244,484 40</u>
Bridgewater Normal School: —		Amount of appropriation apportioned by the Board,	\$40,053 00
Salary of principal,	\$3,000 00		
Salaries of assistants,	18,700 00		
Salaries of teachers of model school,	5,928 00		
Salary of engineer,	800 00		
Salary of fireman,	550 00		
Salaries of janitors,	1,190 00		
Salary of watchman,	700 00		
Clerical assistant,	700 00		

Fuel,	1,381 24			
Repairs and furniture, including boarding hall,	3,139 83			
Advertising,	142 48			
Printing,	196 12			
Apparatus,	381 64			
Lights, water and gasoline,	192 32			
Industrial laboratory,	157 94			
Books and supplies for normal school,	1,662 30			
Books and supplies for model school,	635 06			
Care of grounds,	595 77			
	<u>\$40,052 80</u>			
Balance unexpended,	20	\$40,053 00		
Framingham Normal School: —				
Salary of principal,	\$3,000 00			
Salaries of assistants,	11,875 15			
Janitor service,	1,450 78			
Repairs and furniture,	3,118 69			
Fuel,	1,155 06			
Printing,	120 02			
Apparatus,	254 03			
Books,	358 10			
Advertising,	128 00			
Stationery,	150 63			
Watchman,	710 81			
Water,	130 60			
	<u>\$22,451 87</u>			
<i>Amount carried forward,</i>		<i>Amount carried forward,</i>		
				<u>\$24,500 00</u>

Amount of appropriation apportioned by the Board, \$24,500 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.
APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — *Continued.*

DR.

CR.

1898.	Amount brought forward, . . .	1898.	Amount brought forward, . . .	
Framingham Normal School — <i>Con.</i>	\$22,451 87			\$24,500 00
	699 96			
	90 25			
	684 15			
	422 42			
	150 99			
	\$24,499 64			
	36			
		\$24,500 00		
Fitchburg Normal School: —	\$3,000 00		Appropriation apportioned by the	\$24,750 00
	23,072 18		Board, . . .	10,594 67
	1,350 03		Received from the city of Fitchburg,	
	711 52			
	1,466 16			
	760 32			
	687 95			
	1,242 21			
	1,050 61			
	191 95			
	306 15			
	54 75			
	380 53			
	388 86			
	347 86			
	224 36			
	109 23			
		\$35,344 67		\$35,344 67

Hyannis Normal School:—			
Salary of principal,	\$3,000 00	Amount of appropriation apportioned by the Board,	\$22,475 00
Salaries of assistants,	5,823 75		
Janitor service,	1,443 25		
Repairs and furniture,	6,284 57		
Fuel,	1,416 92		
Apparatus,	2,036 40		
Stationery,	263 87		
Advertising,	14 20		
Books,	1,626 03		
Printing,	272 22		
Lectures,	154 46		
Travelling expenses of principal,	127 63		
Clerical assistance,	11 50		
	<hr/>		
Balance unexpended,	\$22,474 80	Amount of appropriation apportioned by the Board,	\$25,715 00
	20		
	<hr/>		
Lowell Normal School:—			
Salary of principal,	\$3,000 00		
Salaries of assistants,	9,137 98		
Repairs and furniture,	4,422 97		
Janitor service,	960 00		
Fuel,	1,170 69		
Engineer,	840 00		
Advertising,	39 82		
Stationery,	439 36		
Books,	2,074 65		
Apparatus,	2,433 70		
Telephone,	219 74		
Printing,	40 69		
	<hr/>		
Amount carried forward,	\$24,779 60	Amount carried forward,	\$25,715 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.
APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — Continued.

Dr.

Cr.

1898.	1898.	1898.	Amount brought forward, . .	\$25,715 00
Amount brought forward, Lowell Normal School — Con.	\$24,779 60			
Lighting,	53 64			
Gymnasium,	131 00			
Water,	84 15			
Clerical assistance,	450 00			
Lectures, etc,	215 20			
	\$25,713 59			
Balance unexpended,	1 41	\$25,715 00		
North Adams Normal School :—				
Salary of principal,	\$3,000 00		Appropriation apportioned by the	\$24,925 00
Salaries of assistants,	10,374 09		Board, . . . . .	. . . . .
Repairs and furniture,	3,257 20		Deficiency, . . . . .	. . . . .
Janitor service,	600 00			. . . . .
Fuel,	1,503 88			. . . . .
Apparatus,	1,521 60			
Printing,	42 23			
Stationery,	497 27			
Advertising,	18 05			
Books,	2,738 37			
Engineer,	720 00			
Lighting,	313 75			
Telephone,	86 66			
Clerical assistance,	71 70			
Travelling expenses of principal,	130 70			
Physical examinations,	25 00			
Lectures,	34 00	\$24,934 50		\$24,934 50

Salem Normal School:—			
Salary of principal,	\$3,000 00	Appropriation apportioned by the Board,	\$25,025 00
Salaries of assistants,	13,154 98		
Janitor service,	600 00		
Repairs and furniture,	970 72		
Fuel,	1,275 91		
Stationery,	416 23		
Books,	837 12		
Advertising,	41 55		
Apparatus,	1,043 94		
Kindergarten maid,	65 00		
Telephone,	76 83		
Lighting,	141 85		
Water and ice,	140 97		
Printing,	269 59		
Engineer,	1,000 00		
Model school,	1,215 00		
Fireman,	595 69		
Clerical assistance,	43 75		
Lectures,	135 50		
Balance unexpended,	\$25,024 63		
	37		
			\$25,025 00
Westfield Normal School:—			
Salary of principal,	\$3,000 00	Appropriation apportioned by the Board,	\$24,990 00
Salaries of assistants,	13,500 08		
Repairs and furniture,	974 68		
Janitor service,	999 96		
Fuel,	740 57		
Amount carried forward,	\$19,215 29	Amount carried forward,	\$24,990 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.
 APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — *Concluded.*

Dr.

Cr.

1898.		1898.	
	<i>Amount brought forward,</i>		<i>Amount brought forward,</i>
	Westfield Normal School — <i>Con.</i>		
	Stationery,	\$19,215 29	
	Apparatus,	403 33	
	Advertising,	449 37	
	Books,	57 82	
	Printing,	1,161 01	
	Lighting,	644 12	
	Water,	54 36	
	Boarding hall,	231 89	
	Clerical assistance,	2,349 53	
	Telephone,	164 46	
	Lectures and music,	51 09	
		207 68	
	Balance unexpended,	\$24,989 95	
		05	
		\$24,990 00	
	Worcester Normal School: —		
	Salary of principal,	\$3,000 00	
	Salaries of assistants,	12,396 20	
	Repairs and furniture,	2,236 03	
	Janitor service,	690 00	
	Fuel,	980 76	
	Stationery,	195 36	
	Printing,	326 92	
	Apparatus,	273 09	
	Advertising,	5 63	
	Books,	1,042 24	
			Appropriation apportioned by the Board,
			\$21,450 00

Telephone,	51 50		
Water,	50 77		
Lighting,	74 86		
Gymnasium,	38 00		
Music,	88 46		
	<u>\$21,449 82</u>		
Balance unexpended,	18		
			<u>\$21,450 00</u>

APPROPRIATION FOR THE NORMAL ART SCHOOL.

1898.		1898.	Appropriation (chapter 159, Acts of 1898),	\$22,050 00
Salary of principal,	\$3,000 00			
Salaries of assistants,	15,100 60			
Repairs and furniture,	1,732 33			
Janitor service,	902 54			
Fuel,	480 59			
Lighting,	133 50			
Water,	53 20			
Advertising,	95 64			
Printing,	95 86			
Fireman,	455 00			
	<u>\$22,049 26</u>			
Balance unexpended,	74			
				<u>\$22,050 00</u>

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

CR.

DR.

APPROPRIATION FOR THE AGENTS OF THE BOARD.

1898.	1898.	1898.	Appropriation (chapter 159, Acts of 1898),	\$12,500 00
John T. Prince, salary,	\$2,500 00			
John T. Prince, expenses,	357 90			
G. T. Fletcher, salary,	2,500 00			
G. T. Fletcher, expenses,	432 41			
J. W. MacDonald, salary,	2,500 00			
J. W. MacDonald, expenses,	411 17			
Henry T. Bailey, salary,	2,500 00			
Henry T. Bailey, expenses,	187 44			
L. Walter Sargent, salary,	340 00			
L. Walter Sargent, expenses,	111 87			
Balance unexpended,	\$11,840 79			
	659 21			
	\$12,500 00			\$12,500 00

APPROPRIATION FOR TEACHERS' INSTITUTES.

1898.	1898.	Appropriation (chapter 159, Acts of 1898),	\$2,000 00
Expended for instructors and expenses of institutes at Hyannis, Bridgewater, Brockton, Charle- mont, Chester, Dalton, Duxbury, Enfield, Fairhaven, Great Bar- rington, Groton, Holden, Hunt- ington, Hyde Park, Marlborough, Nantucket, Northampton, Wil- braham, Oxford, Rehoboth,			

Salem, Templeton, Worcester and Wrentham,	\$1,751 85		
Balance unexpended,	248 15		
		\$2,000 00	\$2,000 00

APPROPRIATION FOR AID TO NORMAL PUPILS.

1898.	1898.	1898.	1898.
Amounts paid: —			Appropriation (chapter 159, Acts of 1898),
Bridgewater school,	\$509 09		
Fitchburg school,	72 73		
Frammingham school,	109 09		
Hyannis school,	169 70		
North Adams school,	169 70		
Salem school,	169 70		
Westfield school,	727 26		
Worcester school,	72 73		
Balance unexpended,		\$2,000 00	
		2,000 00	
		\$4,000 00	\$4,000 00

APPROPRIATION FOR INCIDENTAL EXPENSES.

1898.	1898.	1898.	1898.
Amount expended, as follows: —			Appropriation (chapter 159, Acts of 1898),
School registers and printing,	\$1,142 23		Deficiency,
Postage,	280 00		
Expressage,	271 68		
Stationery,	149 21		
Books and binding,	51 85		
		\$1,894 97	\$1,894 97

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR.	APPROPRIATION FOR TRAVELLING EXPENSES OF MEMBERS OF THE BOARD.			CR.
1898.	Amounts paid, as follows:—	1898.	Appropriation (chapter 159, Acts of 1898),	\$1,000 00
Apr. 20,	E. H. Capen,	\$27 55		
May 31,	J. D. Miller,	41 88		
June 10,	Franklin Carter,	35 00		
23,	George I. Aldrich,	49 45		
28,	E. H. Capen,	17 00		
July 6,	Geo. H. Conley,	47 50		
8,	Kate Gannett Wells,	58 16		
Sept. 17,	Alice F. Palmer,	60 50		
Oct. 18,	E. H. Capen,	21 00		
Dec. 27,	Kate Gannett Wells,	13 24		
29,	E. B. Stoddard,	38 00		
	E. H. Capen,	16 00		
	Geo. H. Conley,	36 00		
		\$461 28		\$1,000 00

APPROPRIATION FOR EDUCATION OF DEAF CHILDREN.

1898.	Amounts paid, as follows:—	1898.	Appropriation (chapter 159, Acts of 1898),	\$55,000 00
Jan. 1,	American School for the Deaf: 67 pupils, quarter commencing Dec. 1, 1897,	\$3,350 00		
12,	Clarke School for the Deaf: 128 pupils, quarter commencing Jan. 1, 1898,	6,402 86		
Feb. 21,	Horace Mann School: Transportation to Nov. 15, 1897,	664 15		

Mar. 8,	Transportation to Feb. 15, 1898, 113 pupils, Feb. 1 to July 1, 1898,	665 92	
23,	American School: 67 pupils, quarter commencing March 1, 1898,	5,793 05	
April 5,	Clarke School: 127 pupils, quarter commencing April 1, 1898,	3,350 00	
11,	Sarah Fuller Home: 8 pupils, quarter ending April 1, 1898,	6,337 15	
25,	Willie Hughes, teacher for twelve weeks,	350 00	
May 11,	Susie Fitzgerald, Oct. 15, 1897, to March 25, 1898,	32 50	
June 7,	Horace Mann School: Transportation to May 15, 1898, American School: 68 pupils, quarter commencing June 1, 1898,	41 92	
30,		730 45	
July 5,	Clarke School: 126 pupils, quarter commencing July 1, 1898,	3,450 00	
	Susie Fitzgerald, April 11 to June 17,	6,260 00	
25,	Sarah Fuller Home: 9 pupils, quarter ending July 1, 1898,	24 62	
		334 92	
	<i>Amount carried forward, . .</i>	<u>\$37,787 54</u>	<i>Amount carried forward, . .</i>
			<u>\$55,000 00</u>

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONCLUDED.
APPROPRIATION FOR EDUCATION OF DEAF CHILDREN — *Concluded.*

Dr.

Cr.

Dr.	1898.	<i>Amount brought forward,</i>	1898.	<i>Amount brought forward,</i>	1898.	Cr.
Aug. 8,		American School:	\$37,787 54			\$55,000 00
		Clothing to July 1, 1898, .	464 72			
16,		Perkins Institution:				
		Edith Thomas, deaf, dumb and				
		blind, Oct. 1, 1896, to Oct. 1,	700 00			
		1897,				
Oct. 11,		Horace Mann School:				
		115 pupils, Sept. 1, 1898, to				
		Feb. 1, 1899,	5,732 49			
12,		Transportation to Sept. 15, 1898,	559 10			
		Sarah Fuller Home:				
		10 pupils, quarter ending Oct.				
		1, 1898,	239 07			
20,		Clarke School:				
		121 pupils, quarter commencing				
		Oct. 1, 1898,	6,050 00			
24,		American School:				
		66 pupils, quarter commencing				
		Sept. 1, 1898,	3,300 00			
		Clarke School:				
		4 pupils, quarter commencing				
		Oct. 1, 1898,	160 00			
Nov. 19,		Perkins Institution:				
		Edith Thomas, Oct. 1, 1897, to				
		Oct. 1, 1898,	700 00			
				Deficiency,		692 92
						\$55,692 92

C. B. TILLINGHAST, *Treasurer.*

APPENDICES.



A.

REPORT OF JOHN T. PRINCE,
AGENT OF THE BOARD.

REPORT.

To the Board of Education.

There seems to be no service of an agent of the Board more welcome and at the same time more useful to the school officials of a town than that of giving to them the information he has gained concerning methods of school administration and teaching in other towns. In the expectation that this report may fall into the hands of such persons, I propose to refer to some features of school organization which have come to my notice, and which have not been extensively treated in previous reports. First, as to —

MEETINGS OF TEACHERS.

Regular teachers' meetings are held in nearly every town of my district that has a superintendent of schools. As would be expected, a great variety of practice exists as to times and methods of carrying on the meetings. Some meetings are general, and some consist only of teachers of the same grade; some are held after school hours, and some take an entire half-day for conference, either on a school day or on Saturday. The meetings are held generally at intervals of one month. Where the distances are great, once a term is as often as it is thought practicable to bring the teachers together.

The variety in respect to times is no greater than that of the ways in which they are conducted. The most useful general meetings, so far as I have observed, are those in which an entire half-day is given to comments by the superintendent, based upon what he has observed during the preceding month or term, and to a formal address either by the superintendent or some other competent person upon some subject of interest to all. Of course the criticism of methods observed is

likely to be most profitable in grade meetings, or in meetings where teachers have nearly the same kind of work to do, but in general meetings also it is found to be very useful.

Anything that can be done to encourage the teachers to read and think upon the professional side of their work is of great value. Some superintendents lay out for the teachers a course of professional reading, which is made the basis for discussion at regular intervals. The reading and discussions serve to stimulate the interest of teachers in the underlying principles of teaching. This method is also found useful in leading teachers to read literature bearing upon special lines of their work. The following program will illustrate what may be done in this way. It is a program of one of the regular monthly meetings of the teachers of Middleborough, under the charge of Supt. A. J. Jacoby.

1. Opening exercises.
2. Miscellany.
3. Discussion: "Stupid Children."

Suggestive Directions and Questions.

Study "The stupid child," in the December number of "Educational Foundations;" and "The treatment of stupidity," in the January number.

The January number of "New York Education" contains a valuable article on "The dullard," a copy of which is in the superintendent's office.

Have you stupid children in school? If so, have you discovered the causes of stupidity? What has been your treatment of such cases, and what was your success? Have you now, or have you had in the past, what you considered hopeless cases? If so, give reasons for your judgment.

What relation, if any, is there between defective senses and stupidity? Is there any relation between a child's health and stupidity? What are the duties of teachers as to defective senses, and the condition of a child's health?

Is our so-called education favorable or unfavorable to the development of stupid children? Give reasons for your answer.

Criticise: "The condition and teaching of a school must be adapted, not to suit the clever, and not to suit the dull, but to suit the average child, who forms the great majority" (*Miall*).

In general, what is your opinion of Miall's treatment of stupidity?

What hope, if any, is there for defective children in scientific child study?

4. Remarks by the superintendent: "The teacher's scholarship."

Of course no rule can be laid down as to either the number or the kind of teachers' meetings which should be held. In places where untrained teachers are employed, the superintendent is expected to train the teachers while they are in service, and one of the means he uses is the teachers' meeting. In such places the meetings will be more frequent and the subjects discussed will be of a more elementary character than where only well-trained teachers are employed. For example, one superintendent writes that he holds regularly five kinds of meetings, at all but one of which attendance by teachers is obligatory. Another superintendent, working under quite different conditions, says that he is leaving the meetings largely in the hands of the teachers themselves. In the former place, most of the teachers are young and untrained; in the latter, all are trained and are in constant service. The obligatory attendance of teachers upon four kinds of meetings in the latter place would be as unwise as would be the giving up of the control of the meetings to teachers in the former.

In some meetings, papers read by resident teachers make up the program. Under ordinary circumstances, such a plan is ineffective. It has invariably failed to be of profit to teachers in towns having no superintendent. Occasionally one or more members of the school committee try to give wise professional directions to teachers in meetings held for the purpose. Their failure is at once apparent to teachers, and must be finally to themselves. One chairman, doubtless from bitter experience, frankly writes: "Meetings of teachers we find to be of but little use."

HOW TO CREATE A GOOD PUBLIC SENTIMENT TOWARD THE SCHOOLS.

When we consider that school legislation, to be effective, like all other legislation in a government like ours, must be supported by public sentiment, and that the success of the

schools depends in a large degree upon the active support of citizens, it becomes a matter of vital importance that a good public sentiment in favor of the schools be constantly maintained. It is evident that there can be no strong abiding interest in the schools without a knowledge of what they are doing or of some features of their administration. The following means of reaching the people have been found effective, and are commended to the consideration of school officials.

The Local Newspaper. — Among the agencies which may be employed in arousing an interest in the schools and in furthering progressive plans of administration is the local newspaper. Editors are generally willing to open their columns to educational matters of public concern, and for the good of the schools such matters should not be confined to complaints. In many instances the complaints arise from a misunderstanding of actual conditions or of what the purposes of the school authorities really are, and would therefore be prevented by a regular and systematic presentation of what is actually being done in and for the schools. It is evident that the information given should be under the direction of some one who has an interest in the schools, and who has a full knowledge of what they are doing. Naturally, the superintendent is the person best fitted to do this work. As the executive of the school committee, he knows fully the plans of administration; and as supervisor, he is familiar with what is being done in the schools. He is able, therefore, as no one else is, to give a true and judicious account of what is being done for the good of the schools. An example of the usefulness of this service came to my notice recently in Barnstable County. The editor of the weekly papers in Harwich, Brewster and Orleans has allotted a column in each issue of his papers for a "school department," under the direction of the superintendent of schools, Mr. S. H. Chace. In a single issue I notice the following interesting school items: (1) Plans of the superintendent for securing a regular attendance of pupils, and a report of which schools in his district have had the best attendance. (2) Names of persons who have visited the schools during the preceding week. (3) An account of the Thanksgiving exercises in two of the schools. (4) Names of pupils in one town who were not absent during

the term. (5) Notice of the closing of the Eastham schools for two weeks. (6) Details of plans concerning penny collections for a yearly subscription to a paper which gives a weekly statement of current events. (7) Plans for collecting pictures for the schools.

In another paper is printed a long letter from the superintendent to the teachers of the district, which is of special interest to parents.

In the local papers of two other towns I have seen printed from time to time compositions written by pupils, the idea being to print those only which are considered the best.

This means of making known to the public what the schools are actually doing, and thereby helping to create a good public sentiment in their favor, should be more widely adopted in the country towns, and with some modifications might be used with advantage in cities.

Local Educational Societies. — Within a few years local associations have been formed in several places for the purpose of awakening among the people an interest in educational subjects, and of securing the active co-operation of parents and citizens in the work of the schools. A conspicuous example of what is possible for such an organization to accomplish is that of the association which was formed a few years ago in Brookline, and which now numbers six hundred members. Through the general meetings and sub-committees it is actively carrying out the purpose of the society, as announced in its constitution, which is, “to promote a better knowledge of the science of education, a better understanding of methods now employed, and a closer sympathy and co-operation between the home and the school.” Last year four general meetings were held, at which the following subjects were discussed: “Local history;” “What should college do for our girls?” “Physical training in Brookline schools;” “The responsibility of the parent in the education of the child.” Under the direction of the child study committee, mothers’ meetings were held in various school buildings, at which matters of vital interest were discussed, such as: “Home reading;” “Play;” “Care of the sick;” “Proper clothing.” Twelve free lectures were given, mainly by residents of the town, under the auspices of the

lecture committee. Through the efforts of the music committee four young people's concerts, two free organ recitals and four open-air concerts were given. Other committees on science, physical training, school libraries and history also did active and effective work.

Lecture Courses. — In a few places there have been organized, mainly through the efforts of the teachers, a free course of lectures upon educational themes, to which the public are invited. In one place — New Bedford — the lectures are wholly by persons connected with the schools of the city, — the superintendent, teachers and members of the school committee. This year the course consists of fourteen lectures, each lecture being preceded by musical or literary exercises, presented by graduates of the high school. The titles of the lectures, so far as announced, are: "Astronomy" (illustrated); "A glimpse of Central America;" "Geometry, why?" "Culture through art;" "Taxes;" "An hour with moths and butterflies;" "Literature, in school and out;" "By the roadside and elsewhere;" "Painting, past and present;" "Practical education;" "Electricity" (illustrated). Of the success of the course Superintendent Hatch writes: "The course has been a success from the start. The demand for tickets has been so great that it has been necessary to repeat each lecture, as the hall is not large enough to accommodate in one evening those who wish to attend. Over two thousand tickets have been given out, and the average attendance upon the lectures is sixteen hundred or over."

Parents' Meetings. — Within the past two or three years my attention has been called to meetings to which parents are especially invited by the superintendent, for the purpose of exchanging views concerning matters of mutual interest. These meetings have been found very helpful to the superintendent, in affording him opportunity to make known his plans and to hear and answer questions that may be asked by parents. One superintendent reports that occasional meetings have been held in various sections of the town, with good results. These neighborhood meetings are not likely to be as largely attended as meetings held in the centre of the town; but the usefulness of the smaller meetings is thought to be quite as great as the

larger ones, for the reason that they afford a good opportunity for the discussion of local matters, and because they permit a degree of freedom which is sometimes not possible in large gatherings.

Public Visiting Day. — It is understood that the schools are always open to visitors, and that parents especially are cordially welcome. At the same time, the registers show that comparatively few people visit the schools, except upon exhibition days or days when an unusual program is presented. Recently in several places there has been tried the plan of setting apart a day in which the parents are especially invited to see the regular exercises of the school, varied perhaps by having more reviews than usual, and a few rhetorical exercises. The invitation is sometimes extended to the parents through the pupils, and sometimes by letter upon a blank prepared for the purpose. While the attendance on these visiting days has not been in any case large, interest enough has been shown to warrant their continuance. They afford opportunity at least for parents and teachers to see each other, and to correct possible false impressions.

School Reports. — Committees and superintendents as a rule seem to realize the usefulness of the annual report as a means of conveying valuable information concerning the schools, as to their present condition and plans for their improvement. The improved quality of the reports in later years is noticeable, especially in the towns included in district superintendencies. There are few means more potent to awaken an enlightened public sentiment as to the true condition and function of the schools than the annual school report, and the superintendents as a rule have grandly met their obligations in this regard. Instead, as formerly, of assuring the people in stilted phrase that their schools are the best in the State, and giving commonplace platitudes in respect to the duties of parents, most of these reports give each year a clear statement of what is actually being done in the schools, and of what is hoped to be done. Some of them also give expression to good, understandable philosophy relating to education, which ought to go far to show that the schools are not drifting aimlessly, but are guided by sound principles.

Superintendent's Letter to Parents. — One means of reaching parents, other than that afforded through the annual report, is the circular letter sent by the superintendent to the parents of every child attending school. Such a letter was sent at the beginning of the present school year by Superintendent Dutton of Brookline, in which four matters of importance were treated, viz., physical health, home study and recreation, punctuality and regularity of attendance, and attention and diligence in school. To better show the character of the letter, I quote at random the following detached sentences: "As the home holds the school responsible for what is done there, so the school must look to the home to do its part in keeping the children in such physical condition that they are able to put forth their best efforts." "All school children, even those in the high school, need plenty of sleep." "There is no hope of meeting the exacting requirements of the higher institutions on the part of youth who are permitted to attend parties and entertainments that involve late hours, neither can they be dismissed from school to attend places of amusement." "Whenever a pupil knows that the teacher is sustained by the confidence and co-operation of the parent, he is a better and more helpful student."

Such a message, coming in this direct personal way, must have great weight with parents, and must help to create that spirit of co-operation which is essential to the highest success.

TEACHERS.

Permanence. — A glance at the statistics giving the number of different teachers employed and the actual number needed shows that there is a great difference in the permanence of the teaching force in the various towns and cities. While a frequent change of teachers is much to be deplored, it is not always an indication of poor schools, any more than a great degree of permanence is an indication of good ones. Stability in the teaching force of a town or city may be due to one of two causes, — either the teachers are so poor that they are not wanted elsewhere, or the rewards of their service are so great that they do not wish to go. Again, there are good teachers who for family or other reasons prefer to remain in a town at a

low salary, rather than to go elsewhere at a higher one; and there are also good teachers who have to give way to inferior ones, because of the favoritism of a constantly changing board or district committee. But the chief reason for frequent changes of teachers is that some towns can afford to pay what others cannot afford, and so constantly draw from the less favored towns their best teachers. Until some further provision is made, whereby the conditions are more nearly equal than they are now, the lack of permanence in the teaching force of many towns is likely to continue.

Qualifications. — The employment of an increased number of superintendents in recent years has had the effect of increasing the number of skilled teachers in the smaller towns. This is especially true in towns where the committees rely upon the superintendent's judgment in the selection of teachers. There is no way of getting, from available statistics, information upon this point except in the number of normal school graduates employed. While this is not a wholly reliable means of ascertaining the efficiency of a corps of teachers, it is an indication at least of the attitude of the school committee towards skilled teachers. The following table shows the number of graduates of normal schools in the several counties of my field who were employed last year and this year as teachers in towns which have and in towns which have not a superintendent of schools : —

COUNTY.	IN TOWNS NOT HAVING A SUPERINTENDENT OF SCHOOLS.				IN TOWNS HAVING A SUPERINTENDENT OF SCHOOLS.			
	WHOLE NUMBER OF DIFFERENT TEACHERS EMPLOYED.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM A NORMAL SCHOOL.		WHOLE NUMBER OF DIFFERENT TEACHERS EMPLOYED.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM A NORMAL SCHOOL.	
	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.
Barnstable,	22	26	4	4	185	186	31	36
Bristol,	63	63	11	9	967	1,006	154	173
Dukes,	2	4	1	1	33	27	3	5
Nantucket,	13	16	2	2	-	-	-	-
Norfolk,	66	62	19	17	822	800	212	238
Plymouth,	78	75	9	6	553	589	184	188
Totals,	244	246	46	39	2,560	2,608	584	640

From the above table it appears that, while the number of teachers in towns not having a superintendent of schools this year remains practically the same as last year, the number of teachers in those towns who graduated from normal schools has fallen off more than seventeen per cent. It appears also that, while in towns having a superintendent of schools the number of teachers employed has increased less than two per cent., the number of teachers who graduated from a normal school has increased nearly ten per cent. This difference cannot be attributed to city conditions, inasmuch as the number of normal graduates employed in the five cities of this district was actually less in the year 1897-98 than it was in 1896-97, while the whole number of teachers employed was forty-eight more in the former year than in the latter.

But the most direct way of determining the influence of superintendents in raising the standard of the qualifications of teachers is to ascertain the method and character of appointments. I will not allude to the practice in cities and large towns, more than to say that in most of these places the superintendent is given large powers in the selection of teachers. In the towns included in superintendency districts there is the greatest possible difference of practice, from that of giving full powers to the superintendent in the selection of teachers to that of giving him no voice at all in such selection. I am glad to say, however, that school committees in these towns are giving more and more heed to the advice of the superintendent in respect to the employment of teachers. One district superintendent writes: "Fourteen of the fifteen new teachers this year are graduates of a normal school, training school or college." Another says that as time goes on he is given greater authority in the selection of teachers, and that nearly all of the new teachers are graduates of normal or training schools. The school committee of one of the most conservative towns of the State — Westport — passed a vote last spring providing that "no person shall be considered a candidate for a school unless she has graduated from a course equivalent to that of a city high school, and made special preparation for teaching, either at a normal school or as a student teacher. She must also pass, at the request of the committee, an examination conducted by the superintendent of schools."

When towns like Westport are willing to take such a stand as this in the protection of the schools, it would seem time for the Legislature to establish an equally high standard as the minimum of qualifications for teachers throughout the State.

TEACHERS' VISITING DAY.

Time, varying from one to three days in the year, is generally given to teachers to visit schools, for the purpose of getting new ideas relating to the subjects and methods of teaching. No doubt there are teachers who abuse this privilege, especially in places where no attention is given as to what schools shall be visited or as to reports of visits; but generally the visiting day is profitable alike to the teacher and to her school. It is now the custom of many superintendents to advise teachers where to visit, and to require either oral or written reports of their visits. These reports are frequently made at the teachers' meetings, the name of the town and school visited being withheld.

SCHOOLROOM DECORATIONS.

Of the towns and cities reported by Mr. Bailey last year as having schoolroom decorations worthy of notice, fifteen are in my district. In ten of these places the decorations were furnished through contributions of private individuals; in others, the funds were obtained from entertainments or alumni associations. I have noticed in some of these places a growing interest in the collection of works of art for the schools, and a disposition to extend the collection so that every schoolroom may be supplied.

I am glad to see that the disposition to decorate the schoolrooms with works of art is extending to the smaller towns, even to towns whose schoolroom walls were but recently either devoid of any ornament, or else, what was far worse, covered with cheap and tawdry pictures.

In Sandwich an association has been formed, which, with the aid of Superintendent and Mrs. Tice, has done much in furnishing not only decorations for the schoolrooms but also pictures and other works of art for the direct assistance of teachers in their work. Photographic reproductions of famous works of

art have been supplied to the high and grammar schools, and to each primary schoolroom at least one engraving, which serves the double purpose of an aid in teaching and an inspiration to the children. Throughout the superintendency district, consisting of Sandwich, Bourne and Mashpee, wall pictures of a high order have been furnished every schoolroom, largely through the instrumentality of the superintendent.

In other districts similar efforts have been begun, and will no doubt result in the furnishing of good pictures for the schools. In one district the assistance has been asked of ladies' associations, of which there is one in each town.

I would like to commend, in this connection, the efforts of those persons who are seeking to extend the benefits of art study through the distribution of pictures to the schools. This is done in various ways, the most convenient of which seems to be by loan from a central collection, either at a school building, as in Brookline, or at the public library, as in Sandwich. In both cases the pictures are loaned to teachers precisely as books are loaned by the library to its patrons.

SUMMER SESSION OF NORMAL SCHOOL.

I presume that a full report of the first summer session of the normal school at Hyannis has been made to the Board. I desire, however, to testify to the good work accomplished at the school, and the promise it gives of even greater use in the future. The work which I observed there during a two days' visit last summer seemed to be very practical, both for teachers who were spending a portion of their vacation in study and for undergraduates of the normal school who were taking advantage of this opportunity to do extra work or to make up lost time. I was glad to learn that arrangements had been made by which students could be credited with work done, which would count in the regular course. It has been suggested that, with these accumulated credits and one year's leave of absence, graduation from the school is within the reach of any teacher. School committees would doubtless be very glad to grant a one year's leave of absence to any teacher for this purpose, with the prospect of securing her service after her graduation from the school.

RECENT SCHOOL LEGISLATION.

It is too soon to realize fully the benefits of last year's legislation in relation to school attendance, and yet letters recently received from school officials bear testimony to the fact that some good effects of the law are already noticeable. One superintendent writes: "The recent legislation is very helpful in promoting attendance. It is especially beneficial in preventing truancy, and in impressing upon parents and pupils a higher estimate of the value of school time and the importance of regularity of attendance." Another says it is "beneficial by increasing the term of compulsory attendance, by making the provisions more definite, and by increasing the authority of the truant officers." Several superintendents testify that the law has already had the effect of promoting regularity of attendance. One chairman of a school committee writes in approval of the law, but thinks "it would have been an improvement if the Legislature had made it compulsory that towns should maintain school thirty-six instead of thirty-two weeks." This opinion is offset by that of another chairman, who writes: "The new law prohibiting children under fourteen years of age from picking cranberries should be amended the present winter. It is a severe hardship to thousands between Wareham and Provincetown."

Notwithstanding the increased definiteness of the law and the greater ease of securing prosecutions and convictions under it, there is still evidence that the law is not strictly enforced in some places, and that it is not likely to be under present conditions.

The present law permits school committees to appoint one or more of their own number to serve as truant officers, and in at least two towns of my district such appointments have been made. Two instances have been brought to my attention in which the relatives of truant officers thus appointed were illegally absent from school, and of course no prosecutions were made. A man as school committee is not likely to favor an order which obliges him as truant officer to prosecute himself or his children for violation of the law.

But this is not the only or the chief difficulty in the way of

a rigid enforcement of the law. A letter recently received from a superintendent of schools who has faithfully endeavored to carry out the provisions of the law repeats what all have said who know the adverse conditions in country towns. He says: "Local committees and local truant officers in small communities will not incur the enmity of their neighbors by enforcing the law." If we may believe this testimony, the Legislature, in refusing to incorporate in the law last year the provision by which a State school attendance officer should be appointed, or by which other than local officials could prosecute offenders, simply passed by the only sure means of a successful enforcement of the law in country towns. The service of a State official, to whom is committed the duty of prosecuting cases where local officials fail to do their duty, would be useful not merely in a more rigid enforcement of the school attendance laws, but in helping to create a healthy public sentiment throughout the State.

I submit with this my third and last report upon a course of studies for elementary schools.*

JOHN T. PRINCE.

DEC. 31, 1898.

* See Appendix F.

B.

REPORT OF HENRY, T. BAILEY,
AGENT FOR THE PROMOTION
OF
INDUSTRIAL DRAWING.

REPORT.

To the Board of Education.

I have been asked by your secretary to report upon art instruction in some of the elementary schools of Europe. As the object of the trip made during the past year through the generous permission of the Board was not primarily to study educational conditions in the old world, my observations were confined to schools which could be visited conveniently in four cities, — Rome, Berlin, Paris and London. The schools visited, though necessarily somewhat limited in number, were supposedly among the best; for when my official connection with the schools of Massachusetts became known, the authorities, always most cordial and courteous, gave me permission to visit certain schools specified by name. The masters of these schools readily extended to me the freedom of the building, and cheerfully answered every question as to aim and method. I saw special and regular work, heard teaching exercises and oral examinations, questioned the pupils myself, and often had them draw upon the blackboard, that I might judge of their facility.

I endeavored to note only such facts as might be suggestive and helpful in our own work; hence what is hereinafter set down should not be forced to yield unwarranted generalizations or too definite conclusions.

ROME.

The educational system of the city comprises three grades of schools, — elementary, secondary and superior.

ELEMENTARY SCHOOLS. — These are free schools, supported by the city for pupils of from six to twelve years of age. For

the first three years only is attendance compulsory. During this time no instruction is given in drawing; and, as neither physiology nor nature study is taught, the pupils have no occasion for even attempting to draw. During the next three years the introduction of plane geometry affords opportunity for the drawing of straight lines and circles with mechanical aids.

SECONDARY SCHOOLS. — The secondary schools, both classical and technical, are supported by the joint action of city and State, and are attended by pupils of from twelve to fifteen or seventeen years of age. Systematic work in drawing is confined to the secondary schools for technical instruction. The course covers a period of three years, during which each pupil devotes from three and one half to four hours per week to such topics as these : —

Elementary geometry: lines and their relations, the geometric figures, tangents, abstract curves, applications of these in interlacing and other decorative patterns and in common objects.

Outline drawing: foliage and ornamental forms copied from charts and drawn from casts, vase forms from charts, later from the object.

Light and shade is studied during the latter part of the course, first in pencil from lithographic examples, then in charcoal from copy, cast and simple common objects. Wash drawings in ink are allowed.

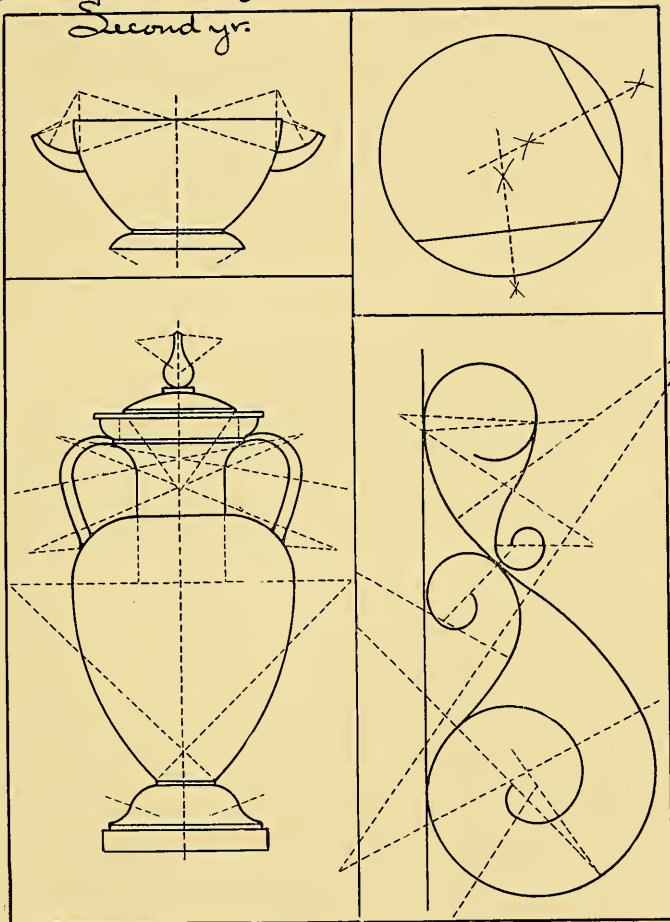
Elementary perspective: mostly parallel, very simple, in pencil, inked, tinted with flat washes for effect.

Design: a little, in connection with geometry. Ornament is copied occasionally, but genuine original design is not often found.

The classes are taught in special rooms furnished with charts in outline and light and shade, with a few photographs of ornament, with casts, the geometric solids, both solid and in skeleton, and a few common objects. No attempt seems to have been made to beautify these rooms by tinting the walls, or by adding works of fine art for decorative effect or for the cultivation of taste.

The instruction, given by special teachers only, is almost exclusively by dictation, assisted by charts or diagrams with dimensions drawn upon the blackboard. The pupils follow the teacher mechanically step by step.

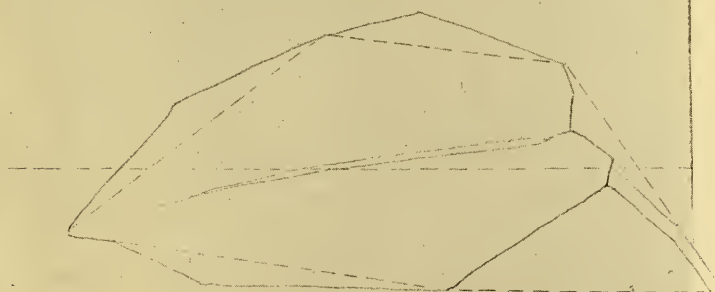
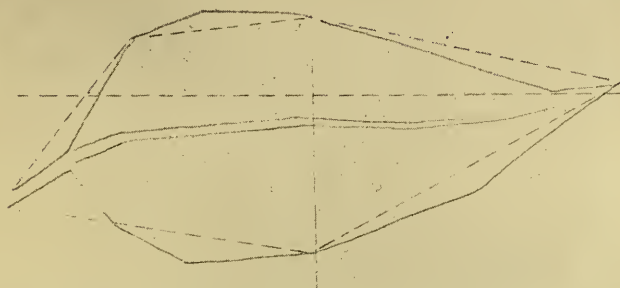
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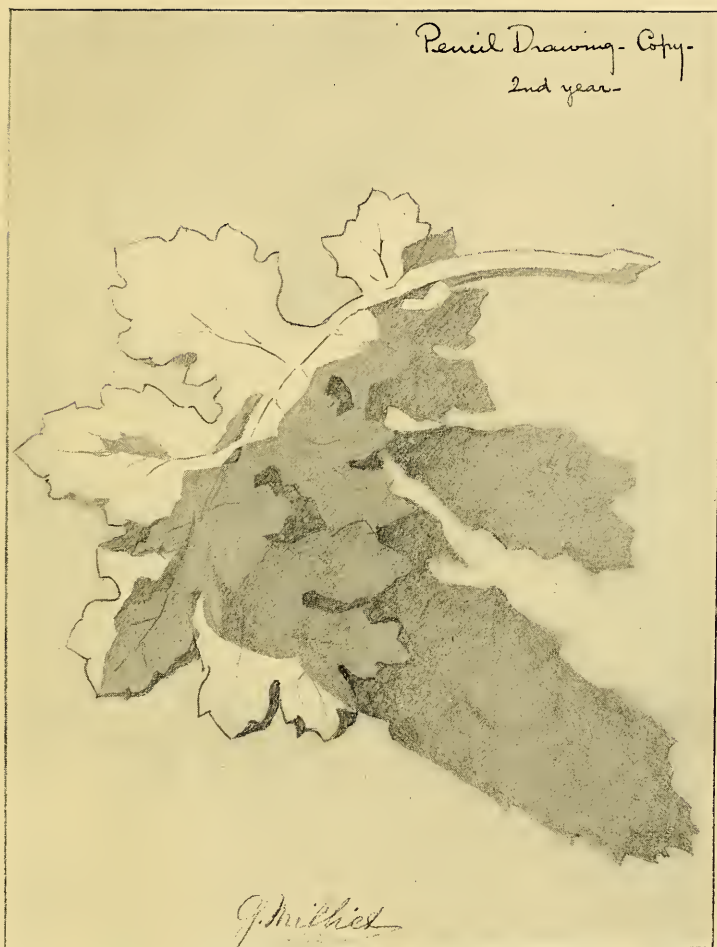
II. ROME. — Secondary School for Technical Instruction. Pupil fourteen years old.

Agosto Livorno.

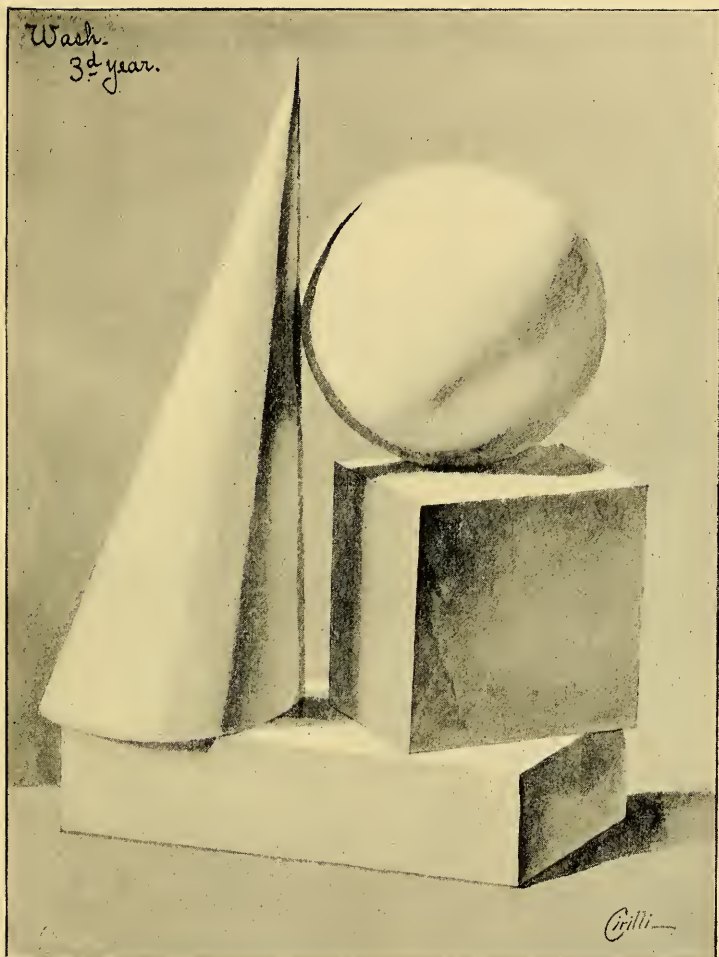
Copy - First Year -



III. ROME — Secondary School for Technical Instruction. Outline drawing in pencil from copy. Pupil thirteen years old.



IV. ROME. — Secondary School for Technical Instruction. Light and shade drawing in pencil from copy. Pupil fourteen years old.



V. ROME. — Secondary School for Technical Instruction. Light and shade drawing, wash, monochrome, from objects. Pupil fifteen years old.

The illustrations presented herewith are reproductions of pupils' work, and fairly representative. It will be seen that the sheets are well planned, but that their character is mechanical rather than artistic. The aim is accuracy. Pupils furnish their own materials, work directly upon sheets of blank paper, and care for their own drawings in portfolios of colored paper or card.

Drawing is taught solely for its educational value as "a training for eye and hand." It has no relation to other school studies, is never employed for illustrative purposes except in map drawing, geometry and physical mathematics, nor is it regarded as a factor in the preparation for any of the arts or trades. It is merely a task, a discipline.

SUPERIOR SCHOOLS.—These include the university, the technical institute, the superior institute and the academy of fine art. In both the technical institute and the academy of art I found broad courses, and thorough instruction yielding admirable results along the various lines of the mechanic and fine arts. As the field occupied by these institutions is outside that of our public schools, a detailed account of their work is not included in this report.

BERLIN.

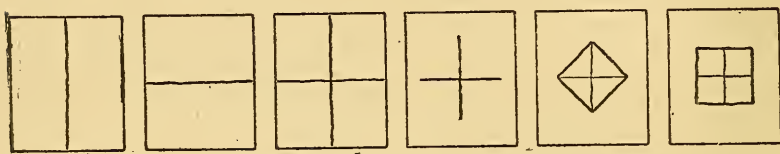
The educational institutions of Berlin may be grouped for convenience as follows: (*a*) public elementary schools; (*b*) higher schools, including the Realschulen or burger schools and the technical or trade schools; (*c*) colleges, including normal and other professional schools of highest grade. My visits were confined to the public elementary schools and the trade schools, because these cover approximately the field, so far as art instruction is concerned, of our own primary, grammar and English high schools.

PUBLIC ELEMENTARY SCHOOLS.—These were formerly organized with six grades each, attended by pupils of from six to twelve years of age. In recent years the number of grades has been increased by law to eight; but, as some of the best schools still retain the old grading, and as the work in drawing is substantially the same in the highest grades under either system, the course is here outlined in six divisions or standards.

I. No instruction in drawing.

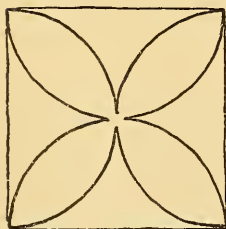
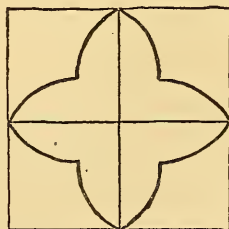
II. Pupils are supplied with books having pages ruled into half-inch squares. All instruction is mere dictation, — directions for placing and connecting dots to form angles, frets, etc. Opportunity is given for original combinations of lines. Medium, the lead pencil.

III. Pupils are supplied with books having blank pages. In some scores of books examined in different schools this was the usual order in the first six lessons : —



All work is geometric in character, usually partly copied and partly drawn from dictation. Medium, lead pencil.

IV. Pupils are supplied with blank books, rules, and in some cases compasses. Curves are first introduced here, all repeated upon the basis of a square, beginning with such a figure as *B*, and extending through a long series including such figures as *C* and *D*. Medium, the lead pencil.

*B.**C.**D.*

V. Materials as in previous grade. The more difficult geometric figures — ellipse, oval — and spiral curves drawn singly and in combination, with mechanical aids, occupy the larger part of the time. The drawing of outlines of vase forms from copy begins here. Medium, the lead pencil.

VI. The classes of the upper grades receive instruction in special rooms furnished with broad tables, adjustable model rests, drawing boards, objects, casts and charts. The objects consist chiefly of the geometric solids, simple and in unusual combinations, and short pieces of wooden moldings. The casts are mostly of ornamental

foliage. The charts give conventional plant form in outline and shaded. Instruction is given by the regular teachers, as in the lower grades. It is chiefly dictation, though model and object drawing is taught during the latter part of the year. Each pupil then has a model in a given position, as indicated upon the blackboard, and draws it upon a large sheet of paper, following the teacher step by step. At last models are placed by the pupil and drawn without blackboard help. Medium, pencil or charcoal. In the girls' schools more attention is given to design, and to drawing flowers from nature.

Aims. — Here, as in Rome, drawing is taught as a disciplinary exercise. It is not used as a means of illustration in other studies, except of course in geometry, map drawing and the like, nor is it correlated in any way with art history or with the arts. No instruction is given in the principles of design or in color. The walls of the schoolrooms are usually tinted an agreeable tone, but their decorations are useful in geography and history, physiology and mathematics, rather than in art instruction. Works of fine art are rare. No thought seems to be given to the training of taste.

Results. — Specimens of work could not be had without special permission of the authorities, — something hardly worth the effort, considering the length of the diplomatic red tape and the character of the results. The blank books contained just such drawings as were found here in Massachusetts fifteen years ago, all painfully manufactured with rule and rubber, according to specifications. In some rooms pupils had never drawn upon the blackboard; in others, though ten pages of the book had been completed, the pupils could not tell the name of a single line, angle or figure, and their teachers admitted such things had never been taught. Tests in observation revealed power to see differences in length, in direction, in character of lines, provided such differences were obvious; but almost no power in judging fine proportion, or in appreciating subtle curvature. There was no free, confident drawing.

Outlook. — The conditions are such that great changes for the better are likely to occur in the immediate future. A new system of instruction, already widely adopted in some sections of the empire, — a system characterized by greater freedom,

wider range and more rational methods, and in which pencil and charcoal are supplemented by the brush and color, — has been introduced as an experiment in a few schools of the city. Many teachers are dissatisfied with the old system, though not as yet willing to admit that the new is better. An agent of at least one of our publishing houses has made strenuous effort to introduce an American system of art instruction, thus far without success; but the attempt has aroused wide discussion, and will lead, no doubt, to the adoption of a more liberal policy on the part of the school authorities.

TRADE SCHOOLS. — The trade schools of the city are twenty-one in number, and are attended by more than nine thousand students. They employ about three hundred and forty teachers, and cost the city not far from two hundred thousand dollars a year. There are schools for builders, bricklayers, blacksmiths, braiders, bookbinders and barbers; for cabinet-makers and chimney-sweeps; for glazers, gardeners, painters, paper-hangers, shoemakers, saddlers, tailors, wheelwrights and weavers. I visited but one of these schools, — the oldest, largest and most widely known, that under the wise and vigorous management of Dr. Jessen. The other schools are in all essential particulars based upon the plan of this school.

Dr. Jessen's school has more than two thousand students. It is open both day and evening, — an arrangement which necessitates the employment of nearly seventy teachers. The instruction is characterized by the most effective modern methods, and by a thoroughness seldom equalled in schools of similar grade in our country. The equipment is admirable. One could not but envy these teachers their excellent collections of wrought-iron work, their metal and plaster casts, their carefully selected sets of mechanical tools, their progressive exhibits of various mechanical processes. Besides all this illustrative material, charts, blue prints, photographs, original drawings and the stereopticon are all utilized in teaching.

The courses include arithmetic, bookkeeping, physics, mechanics, drawing and modeling. The drawing and modeling courses include the course in form, freehand drawing and modeling of ornament; the course in architecture, under which, in addition to the usual topics, instruction is given in wood

and brick and stone construction, and the relative strengths of materials; and the course in mechanics, including geometry, projection, — orthographic and isometric, — development and the projection of shadows with their various applications, and machine drawing and design.

Although class lectures are given, during the evening sessions there is no class instruction in the ordinary sense. Pupils may enter at any time and continue any desired line of study for ten years if they wish, devoting to it from four to twenty-eight hours per week. The average amount of time actually spent in the school by evening students is about eight hours per week.

The results secured under these conditions are extraordinary. Pupils of high school grade produce such work as we find in our best evening drawing classes, and the work of Dr. Jessen's evening pupils would compare favorably with that of our own art school students.

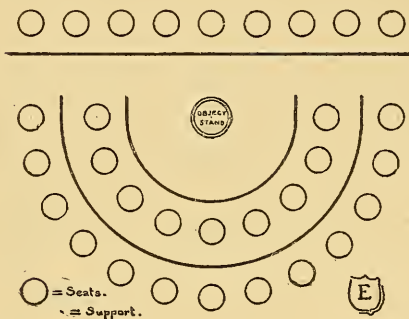
PARIS.

For instruction in art in the public schools of the city, Paris employs a director, five supervisors and about four hundred special teachers. These special teachers receive \$160 for each "course," — requiring three hours' time twice a week, — and are allowed to have as many as three or four day courses and one evening course, but not more. The remainder of their time is devoted to "living," — studying life, reading, practising some specialty, visiting the studios and galleries, — in short, to "keeping fresh," as one of them expressed it, that they may be growing teachers, inspiring to their pupils.

"Is drawing in your schools taught by the regular or by special teachers?" The intelligent Parisian to whom my question was put replied quickly: "Do not ask that question in any school you visit; they will think you to be a barbarian. By specialists, of course. It is an art. The regular teachers have not the gift to teach it."

A convenient classification of the schools of the city is as follows: (1) the maternal or infant schools, corresponding with our kindergarten and lower primary grades; (2) the elementary schools, which hold the pupils until about their

fourteenth year; (3) the superior schools, with pupils of high school age; (4) the special and academic schools. My visits were confined to the elementary and superior schools.

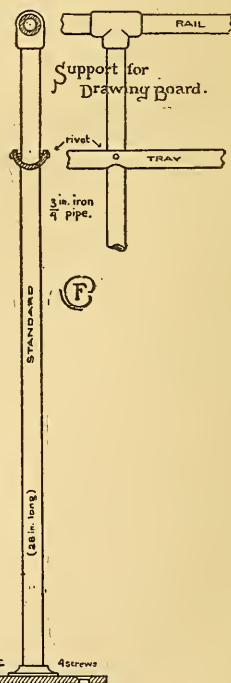


ELEMENTARY SCHOOLS. — Nearly all of these schools have a large, well-lighted room, upon the upper floor, devoted to instruction in drawing. In some of these rooms the seats are arranged as indicated at *E*. Pupils sit upon movable stools, hold the drawing boards

in the lap, and lean them against an iron support whose construction is indicated at *F*. Models, objects or casts to be drawn are placed at the centre, within sight of all. Pupils are furnished with all necessary material, including even jackknives, plumb-bobs and portfolios. All the rooms have tinted walls, and are furnished with an abundant supply of models and casts; but there is no school-room decoration, as we understand it. Some buildings have also admirably equipped manual training laboratories. Instruction in drawing is given in the ordinary schoolrooms of lower grade, but in the special room for the upper grade pupils.

Courses. — The courses vary greatly, within certain limits established by an official printed course; but most of them include these topics: —

Inventional drawing (for want of a better name) is to be found in the lower grades. Pupils are supplied with books having a network of light lines upon each page, wherein they “take” objects of every kind, alas, not always casting the bad away!



Geometry.—In addition to the usual problems, abstract geometric design is practised, merely for spotting with color for pleasing decorative effects. Geometry is closely correlated with manual training and working drawing throughout the course.

Working drawing as such is not introduced until comparatively late in the course, and then in connection with manual training. Common objects are drawn with sectional views. Much attention is given to the various joints used by cabinet makers.

Object Drawing.—In the lower grades pupils are encouraged to make sketches at home; later, all sorts of objects are drawn in school, among which artificial flowers hold a prominent place. Artificial flowers are more common in Paris and less expensive, and one might almost say more beautiful, than the genuine article. Certainly those I saw in use were better for the purpose than any natural flowers available at that season could possibly have been. The wire stems are inserted in a bit of plastilina, and are thus fastened to the desk in the desired position. In the upper grades geometric solids and casts are drawn in pencil, in outline and with suggested light and shade. Occasionally charcoal is used in place of pencil. The course in freehand model and object drawing is supplemented by one in mechanical perspective.

Design.—In the lower grades but little is attempted. In the upper grades, in addition to the abstract geometric design, are designs with conventional units drawn with colored crayons or colored inks, with black ink added for accent. Designs are made with floral units for wall papers, book covers, plaques and fans.

Color.—The pigmentary theory of color in its most elementary form is taught by means of colored crayons, as a preparation for the coloring of designs. Water colors are rarely used in school exercises.

Methods.—The average time devoted to drawing is three hours per week. The methods of instruction vary even more than the courses, as may be gathered from the following notes, made at the time of the visits:—

October 5, No. 4. 7th Grade.—Poor work. Evidently no instruction in method. No thinking of movement or mass. Pupils begin at the top and draw around as best they can. Much scrubbing with rubbers. No breadth of light and shade. Shading mussy. No suggestion as to the proper use of the pencil in shading. No instruction in principles of design, not even of *growth* when plant forms are used. Design all bad. No harmonious coloring. All work slovenly.

October 10, No. 8. 7th Grade.—Work excellent. Heard lesson given by special teacher,—the drawing of a skull from the object, in

pencil, with suggested light and shade. Up-to-date methods. Drawing of axis, lines of growth, action, mass, always precedes outline or detail. Pupils urged to use sketch books. Sketch books furnished by city. Credit given for their use. Pupils visit museums and galleries occasionally with special teacher. Prizes — books on design, history of art, architecture, etc. — are given at the end of each school year for best work in drawing in each room in the building.

All drawing is upon separate sheets of blank paper of large size, often half imperial. Thought is given to proper arrangement of sheet. There is almost no copying. Drawing is used for purposes of illustration in other studies, but not very generally. No attempts at ornamental initials, head and tail pieces, or decorative covers for school work were to be found.

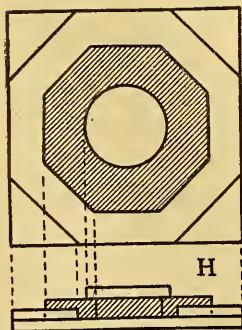
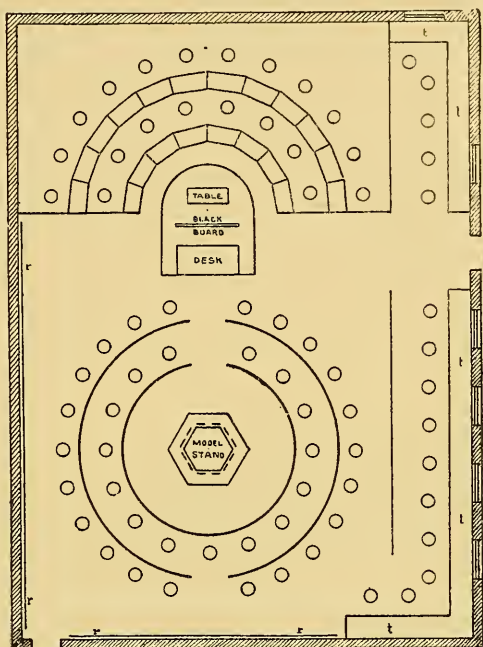
Aim. — In Paris, as in Berlin and Rome, the aim seems to be almost wholly educational in the narrower sense, — to train the powers of observation and expression, with little or no thought of elevating the taste or of broadening the outlook towards art or life. The use of drawing as a language in other studies is merely incidental. Where manual training courses have been introduced, the mechanical drawing has an evident utilitarian tendency, and in the best schools a charming esthetic quality, which our manual training teachers might well strive to secure.*

SUPERIOR SCHOOLS. — I visited but one of these schools, L'ecole Primitive Superieure Turgot, where the art instruction is under M. Gabriel Guay, a vigorous and enthusiastic student and teacher. Almost the entire upper floor of one wing of the large building is devoted to his department. An immense class room, lighted from the top and one side, and several studios, are conveniently arranged and fully equipped with models, objects, photographs of the great paintings, fac-simile reproductions and original drawings and sketches. The collection of plaster casts is superior to any I found elsewhere. It is especially rich in ornamental foliage of various schools, selected with special reference to comparative study of the styles of architectural enrichment. The class room, *G*, is arranged

* The manual training in some of the Paris schools is superior to anything I have seen in this country. The models are at once simple, practical and thoroughly artistic. The courses in cold metal working are especially attractive. The kit is inexpensive, and the results daintily beautiful.

to accommodate three classes at once; a class, for example, in design, at the tables, *tt*, a class working from casts in the circle, and another following the instructor's demonstration lesson in the hemicycle. One studio is devoted to modeling in clay, another to light and shade.

The courses are similar to those in our best high schools, except that much less attention is given to color and much more to the drawing of ornament from cast. The mediums used are the pencil for outline, crayon sauce for light and shade, colored crayons for color, and pen and ink for delicacy. Watercolor is not used except in mechanical drawing and occasionally in decorative design.



Unique Features.—In projection colored models are used at first to assist the pupil in locating corresponding points in the two views. These models are in the form of rosettes built by the pupil from different colored cards, as suggested at *H*. In the edge view the thickness of the cards is exaggerated for the sake of clearness, as shown in the figure. The drawing is tinted with crayon or watercolor, to correspond with the model.

To secure accuracy of observation in drawing ornamental details, M. Guay has devised a system of visible construction

lines, so to speak. By means of moist clay or plastilina black threads are stretched across the cast that important points may be located by diagonals.

Some of the best work is in connection with the history of architecture. Upon the left half of an imperial sheet is a large, bold drawing in outline from cast of some typical piece of acanthus foliage. Upon the other part of the sheet is the carefully written or printed text, summing up the history of the style and describing the characteristic variations which distinguish it from other styles.

In certain courses the sheets upon which the drawings are made have sketches, diagrams and other illustrative data printed across the top of the sheet. For example, the imperial sheet of charcoal paper, upon which early studies from the antique are made, contains in a space about four inches wide, extending the entire width of the sheet, a diagram showing two views of the head of ideal proportions, with a scale for subdivisions; a diagram showing relative proportions of eye and mouth, a series of sketches giving the essential lines in facial expression; sketches comparing Negro and Caucasian skulls; drawings of hands and feet in different positions, and of their skeletons; two drawings of the head showing the superficial muscles, together with descriptive text; and a scale of values obtainable by charcoal upon this quality of paper. There are similarly arranged sheets for beginners in light and shade, and in design.

Results. — Owing to M. Guay's ability and enthusiasm and to his rational methods of teaching, the results are most admirable, "educationally" and technically. One could not but feel, however, that, from the American point of view, they lacked life, originality, promise. They reflected the school life, — a life apart from the busy, industrial world, into which the pupils would soon plunge, and for which the very best forewarning, forearmng though it be, will prove ineffectual enough.

LONDON.

The work of the city in the matter of art instruction is so overshadowed by the great governmental plant at South Kensington that one must make a definite effort to discover what is

actually being done by municipal authority. When the clue is found and one has passed into the realm of the School Board for London, one is surprised with the magnitude of the work under the direction of that complex organization. In the metropolis are more than twice as many children of school age as are to be found in the entire State of Massachusetts. Some attend church or parochial schools, others select schools managed by private enterprise; but there are at the present time some half million children attending the "board schools." These schools are classified in the official reports under two heads: I., the day schools; II., the evening continuation schools.

DAY SCHOOLS. — "Regular" day schools are of four sorts: infants', mixed, girls' and boys'.

Drawing is, under the code of the education department, a compulsory subject of instruction in all boys' departments, but the Board have decided that it shall be a compulsory subject in all senior departments. In the case, however, of girls' departments, and of girls attending mixed departments, it is not necessarily to be taken as a subject for examination. The Board have decided that mechanical drawing to scale with actual measurements should be encouraged in all boys' departments, and that instruction in practical geometry should be included in the teaching of drawing.

The head teachers of infants' departments have been directed to give instruction in drawing to Standard I. boys in those departments, in order that, on their promotion to Standard II. of the boys' departments, their instruction in drawing, according to that standard, may be the more satisfactorily carried on.*

In view of this requirement, the boys' schools seemed to be the most promising field for observation.

Instruction in drawing in these schools is according to a syllabus published by the "Department of Science and Art of the Committee of Council on Education." The syllabus contains two courses, one known as the "regular" course, the other and newer course as the "alternative." These courses are administered by two board instructors for art, one having supervision of north London, the other of that section of the city south of the Thames. Each instructor is assisted by three

* Report of The School Board for London, 1897, p. 54.

specialists, who have three selected school buildings each, in which advanced instruction is given to upper-grade pupils of special ability.

The “*regular*” course is outlined as follows in the illustrated syllabus of instruction : —

The standards of examination in drawing for scholars are as follows : —

Standard I. Drawing, freehand, and with the ruler, of lines, angles, parallels and the simplest right-lined forms. (To be drawn on slates or on paper, at the option of the managers.)

Standard II. Similar work to that of Standard I., but to be drawn on paper only.

Standard III. (a) Freehand drawing of regular forms and of curved and right-lined figures from the flat.

(b) Simple geometrical and right-lined figures, to be drawn with the ruler.

Standard IV. (a) Freehand drawing from the flat.

(b) Simple scales and drawing to scale.

Standard V. (a) Freehand drawing from the flat.

(b) Drawing from rectangular and circular models and from easy common objects.

(c) Geometrical figures with instruments and to scale.

Standard VI. (a) Freehand drawing from the flat.

(b) Drawing from models of regular form and from easy common objects.

(c) Geometrical drawing more advanced than in Standard V.,* or

(d) Plans and elevations of plane figures and rectangular solids in simple positions, with sections.*

Standard VII. (a) Freehand drawing from the flat.

(b) Drawing from models of regular form and from easy common objects, more advanced than in Standard VI., or

(c) Drawing any common objects and casts of ornament in light and shade.

(d) Geometrical drawing more advanced than in Standard VI.,* or

(e) Plans and elevations of plane figures and rectangular solids in simple positions, with sections.*

N.B. — In order to interest the scholars, it is advisable to teach them to draw as early as possible from such common objects as are easily available. It will also be found quite possible and very desirable to go beyond the foregoing standards in teaching. Thus freehand drawing of bold curves may be introduced in Standards I. and II. ;

* Girls are not required to take the subjects specified in Standard VI. (c) or (d), or Standard VII. (d) or (e).

and exercises may be advantageously given, in all standards, in drawing from memory.

It must be clearly understood that the diagrams which are here given on a reduced scale are intended solely to illustrate the above schedule, and to give an idea of the nature and the degree of difficulty of the drawings which scholars will be expected to practise in each standard.

Scholars in the first three standards should make their drawings of a size to fairly fill slates or paper six or seven inches in length. Scholars in the higher standards should be exercised in enlarging and reducing their freehand examples, and should generally draw on a larger scale than scholars in the lower standards.

This course is still the popular course in the schools which are situated in the “conservative” parts of the city north of the Thames. In the “democratic” districts south of the river the new course is more popular, and is slowly but surely making its way to a leading place, although not regarded with utmost favor by the governmental authorities at South Kensington.

The Alternative Course. — An idea of the distinctive features of the new course may be gathered most readily, perhaps, from the introductory notes printed in the syllabus: —

This syllabus is framed on somewhat different lines to the syllabus hitherto in use, and is not intended to supersede the latter, but merely to provide an alternative course of instruction for such schools as choose to adopt it.

The principles on which this alternative syllabus is founded are a development adapted to the needs of older scholars, of methods with which teachers are already familiar in the infant school.*

* The following passages in a circular on the subject (Education Department Circular, 322, 6th February, 1893) may be noted: —

Two leading principles should be regarded as a sound basis for the education of early childhood.

(1) The recognition of the child's spontaneous activity, and the stimulation of this activity in certain well-defined directions by the teachers.

(2) The harmonious and complete development of the whole of a child's faculties. The teacher should pay especial regard to the love of movement, which can alone secure healthy physical conditions; to the observant use of the organs of sense, especially those of sight and touch; and to that eager desire of questioning which intelligent children exhibit. All these should be encouraged under due limitations, and should be developed simultaneously, so that each stage of development may be complete in itself.

You should direct the attention of teachers to the chief consideration which underlies true methods of infant teaching, viz., the association of one lesson with another through some one leading idea or ideas.

A leading feature in this syllabus is the introduction of drawing at arm's length. Where there are facilities as regards room, etc., this will be best done by scholars standing in front of their slates or boards, which should be fixed in a nearly upright position. In schools where this cannot be arranged, the scholars should sit as far back as possible, leaning against the desk behind, with slate or board propped nearly upright on the desk and at arm's length from the scholar, who should work freely from the shoulder, never touching the slate or board with the wrist or more of the hand than the top joint of the little finger. The slate or board must not be turned about nor the position of the body shifted in order to draw curves or lines in various directions. These remarks do not, however, apply to brush work or drawing with instruments.

The possible close connection of the present course of drawing with other modes of teaching in the school should not be lost sight of. For example, at many points a good teacher may find it possible to use this course as a basis for hand and eye training in other suitable material, while the introduction of each new form, *e.g.*, the egg-form, Standards I. and II., may be suitably connected with object lessons or stories on familiar objects which suggest that form.

The forms produced and their combinations will naturally suggest decorative and natural shapes, and it should be the object of the teacher to develop this association of ideas.

The materials required will be (1) slates, with chalks, white or colored, or soft composition slate pencil; or, where this is practicable, small blackboards or pieces of blackened millboard with chalks and a damp sponge or rag; (2) cartridge paper and pencils; (3) camel's hair brush, and one or more water colors.

Nothing in this syllabus must be taken to imply that importance is not to be attached to accuracy and care in the execution of the work herein suggested.

Conditions.—The conditions under which the pupils work vary greatly in different localities in London, just as they do in all large cities. The more modern school buildings are well lighted and ventilated, have seats arranged upon a terraced floor, and are well supplied with illustrative material. The walls are tinted, and each room has at least one good picture. The requisition list of the School Board includes, among the thousand and one things which (up to a certain limit fixed annually by the School Management Department) may be had for the asking, a list of some four hundred works of art. One finds in this list photographs of noted scenery, famous men, historic buildings, lithographic reproductions of pictures in the

National Gallery, the “Fitzroy” pictures, flower pieces, etc.; other reproductions, — photochromes, autotypes, heliogravures, engravings, prints, photogravures, — including such subjects as Rowney’s animal heads, Caldercott’s nursery rhymes, Galland’s decorative friezes, the most famous works of the old masters, and selections from Turner’s *Liber Studiorum*.

Instruction in drawing is given by the regular teachers, and averages about two and one half hours per week in each grade.

Methods, Devices, etc. — In the lower grades slates are used for drill in drawing lines and recording measurements, and in the upper grades for practice work largely in connection with design. In some of the upper grades large sheets of press board are inserted near the back of the desk, and upon these bold freehand drawings in white chalk are made from dictation for practice in free-arm movement.

Water color is confined almost exclusively to those schools using the alternative course. Each pupil is furnished with a short, wide-mouthed bottle and three brushes of different sizes, familiarly known as the “crow, the duck and the goose.” As two pupils have a desk in common, one tray of moist colors serves for both. During an exercise the bottle of one pupil is reserved for clean water, and that of his seat mate for rinsing water. The bottles are collected and distributed without loss of time or accident by making use of wire trays having about a dozen compartments each the right size to receive a bottle. The water color is used upon both white and colored papers with good results, especially in decorative design of the conventional sort. The accompanying plates show a few characteristic designs made by pupils from ten to thirteen years of age during a lesson period of one hour. The children, having sheets of cream-white paper about eight by twelve inches, drew in pencil a six-inch square, and within it made a design in water color, using only two strokes or variations or combinations of them. The class numbered forty-four. The designs reproduced, plates 6 and 7, are average work.*

Drawing to scale is begun in the fourth standard, practically our fourth grade. Pupils are furnished with netted paper, each square of which represents an inch, two inches, or whatever the scale requires. Later, the net is discarded. In the

* From Mantua Street School, Battersea, London, S.W., June 21, 1898.

upper grades isometric projection is taught, in addition to the usual topics. All this instruction is related to that in manual training. The two sheets reproduced herewith, plates 8 and 9, will illustrate the nature of the work and its quality.

The model and object drawing is executed with pencil, without light and shade, until very late in the course. It has not been "popularized" by the introduction of novelties either in subject matter or mediums.

The best teaching I found in these four cities was in London, but even that fell below our higher American ideals. The "lecture method" is too common, leading questions are frequent; one finds but little of that sort of teaching which requires a pupil to take the laboring oar, to stand on his own feet, to do his own thinking, to observe for himself and be responsible for what he concludes.

The best teachers have an intense interest in what is being done in our schools, and have that willingness to learn, to exchange samples of work, to prove all things and hold fast that which is good, which is the sign and the pledge of continual growth.

Ends.—The ends to be secured in drawing in the London day schools seem to be two: first, the purely educational end of mental discipline; and, secondly, the discovery of those who have special talent, that they may be specially trained for better work in the arts and crafts. The relation of the elementary course to the courses of the technical and art schools is, therefore, not entirely overlooked, nor is the course wholly independent of the other courses in the elementary school; but the value of drawing as a language, as a culture study, and its decorative and pictorial possibilities in connection with the entire school life, have not as yet the recognition they deserve.

THE CONTINUATION SCHOOLS. — These schools are open evenings, from the third week in September until the following summer, for the free instruction of all persons of any age not compelled by law to attend the day schools. There are classes in elementary school subjects, English history and literature, physics and chemistry, bookkeeping, shorthand, typewriting and French; in science and art, in cookery, laundry work, dress cutting, needlework, wood carving, violin playing, vocal music and gymnastics.

Instruction in drawing is precisely similar to that in our free evening drawing classes, and the results equal to the best we have been able to secure.

The recognition by Her Majesty's government of the importance of art instruction, which is evinced by the far-reaching and generously supported system of gratuities, awards and scholarships, with headquarters at South Kensington, is a constant source of inspiration to pupils of every grade throughout the kingdom. A thorough investigation of the "South Kensington system," — a term which has been used as a reproach in certain quarters long enough, — and an illustrated report upon the splendid organization, equipment and results of that system, would open the eyes of the American people and excite their admiration. We have more to learn from the slow-sure Briton in this matter of public art education than we have from the mercurial Frenchman.

REVIEW.

Within the narrow range of my observations anything like generalization would be entirely out of place, and no doubt misleading. The various systems of education cannot be fairly judged by the work of a score of classes in each educational centre. And yet one cannot escape certain impressions. There is a sort of atmosphere to which one accustomed to dealing constantly with teachers and school children becomes abnormally sensitive. If one attempts to record an impression, the statement must be taken for what it is worth in the premises.

From visiting the schools of these four cities I received the impression, first, that the spirit of the schools is a reflection of the spirit of European civilization, — a civilization in which the old monarchical idea is still dominant, in which the habit of submitting unquestioningly to constituted authority is so ingrained that the common people doubt the right of the individual to think for himself. The teaching is dictatorial, dogmatic, mechanical, unsympathetic. The individual child is of no more value than an individual soldier. I found in the schools none of that overflowing delight in school work, that spontaneity, that enthusiasm, that free manly courage of our smiling, rosy-cheeked children which thrills and inspires the teachers. European children are sallow and surly and sad in their dim schoolrooms.

My second impression is that the art instruction in the public schools in London is five years behind our own, in Paris ten, in Berlin fifteen and in Rome twenty. Perhaps all our progress is not real improvement. No doubt some features are at the present moment greatly over-emphasized at the expense of others; but the fact remains that we have lived through in order certain phases of art instruction now to be seen reflected in the work of these cities.

The outlook of our American teachers is wider, the aim higher, the desired product finer. Nowhere except in the United States has the ideal of *an art education of the entire people for the sake of a larger life* taken possession of the leaders. We believe that art instruction, with all that it includes, should be disciplinary, that it should prepare the way for the arts and crafts, that it should furnish a new language; but we believe also that it should add grace to precision, combine taste with power, and enrich the prose of life with the poetry of eternal beauty. It is surprising that with this conception of the value of art instruction, we allow it but an hour and a half a week, while drawing as a merely disciplinary study is, in these four cities, given fully three hours per week.

RECOMMENDATIONS.

After visiting European cities, with their wealth of venerable and stately architecture, their galleries of masterpieces, their rich municipal museums, one is impressed with the poverty of our own cities and towns. Of course our wealthiest cities have their galleries and museums of various sorts; but the smaller cities, like a score that might be mentioned in Massachusetts alone, have practically nothing to inspire and guide the people in matters of taste. We have libraries, but not museums. No State in the world has done so much for the intellectual life of its people as Massachusetts; shall she do less for their esthetic life? It has been shown more than once that because of the superior intelligence of her people Massachusetts leads the States in wealth-producing power. She was the first to establish those conditions which make possible a lead in art-producing power. Shall she not perfect them? Unless she does more for art in the near future, her prestige will suffer. The State that established the first university in America, the first free high school,

the first free normal school, the first free art school, should now make that art school the supreme art educational force in the Commonwealth. Its courses should ever be enriched and broadened, the normal character of its work emphasized, and a rich working museum of applied art should be established at once, — not a collection of rare curiosities, to be exhibited under plate glass, but a collection of the best available examples of the wise and happy application of art to objects of common use, to be sent out upon application to any city or town or village in the State. It should comprise exhibits showing the historic development of processes, and the results, ancient and modern, in textiles and prints of various sorts, including artistic printing and bookbinding, keramics, the various departments of wood carving and joinery, of metal working, and of all objects of art value produced by artists and craftsmen. The demand for illustrative exhibits for public education is well known to those familiar with the history of the loan collections of “The Youth’s Companion,” “The Ladies’ Home Journal,” the Library Art Club of Massachusetts and the Woman’s Educational Association of Boston. The State Normal Art School might fittingly become the custodian of a collection such as I have suggested. Its present collection is limited to the familiar Greek and Roman casts, and the works of its own students.

I would therefore respectfully recommend to the Board that steps be taken to secure from the Legislature an appropriation of money sufficient to establish a central museum of applied art at the State Normal Art School, which shall become the source from which local authorities throughout the State may draw illustrative material for the education of the people in matters of taste.

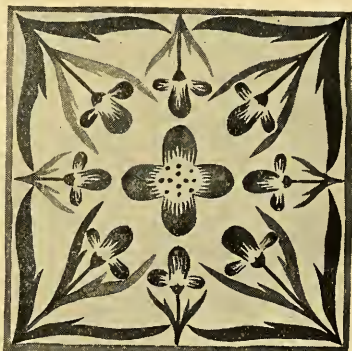
Secondly, in view of the fact that no State exhibit of drawing has been held for more than fifteen years, and of the possibility that there may be a call for school work in drawing to represent the State at the Exposition of 1900, I would respectfully recommend that the Board arrange for an exhibition of the results of art instruction in the public schools, to be held in Boston at or near the close of the school year ending in June, 1899.

I wish at the close of this year especially to thank the Board for its cordial friendship.

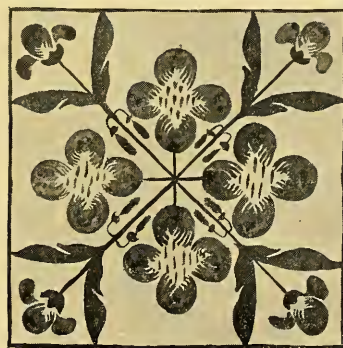
HENRY T. BAILEY.

Plates VI. and VII.

LONDON.—Board School. Twelve designs, selected as fairly representative, from a set of forty-two, made by the boys in Standard VI., Mantua Street School, Battersea, Tuesday afternoon, June 21, 1898, in one hour's time. The directions were "draw a six-inch square in pencil. Make a design to fill it using the 'leaf stroke' or the 'petal stroke' or variations of these. Colors: ground tint of yellow, foliage blue-green, petals red." Average age of pupils twelve years.



VI LONDON.—Board School. Original design in color.



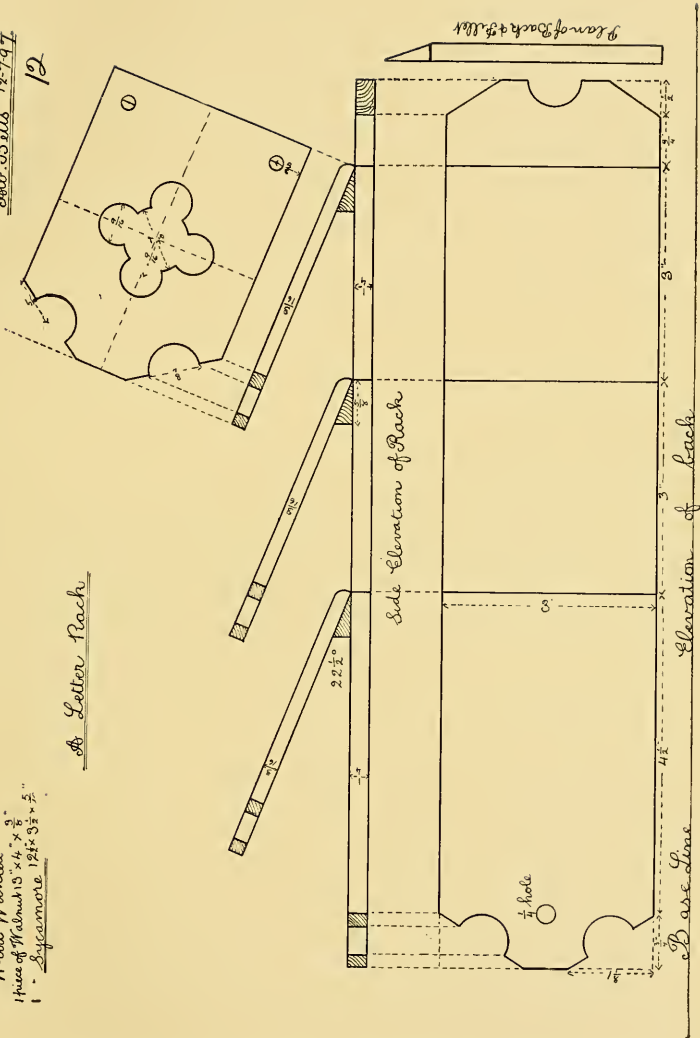
VII. LONDON. — Board School. Original design in color.

Wood Wanted
 1 piece of Walnut 13 1/4" x 3"
 1 " Sycamore 12 1/4" x 3 1/2" x 1/2"

A Letter Rack

Abt. Batts 12-7-97

12

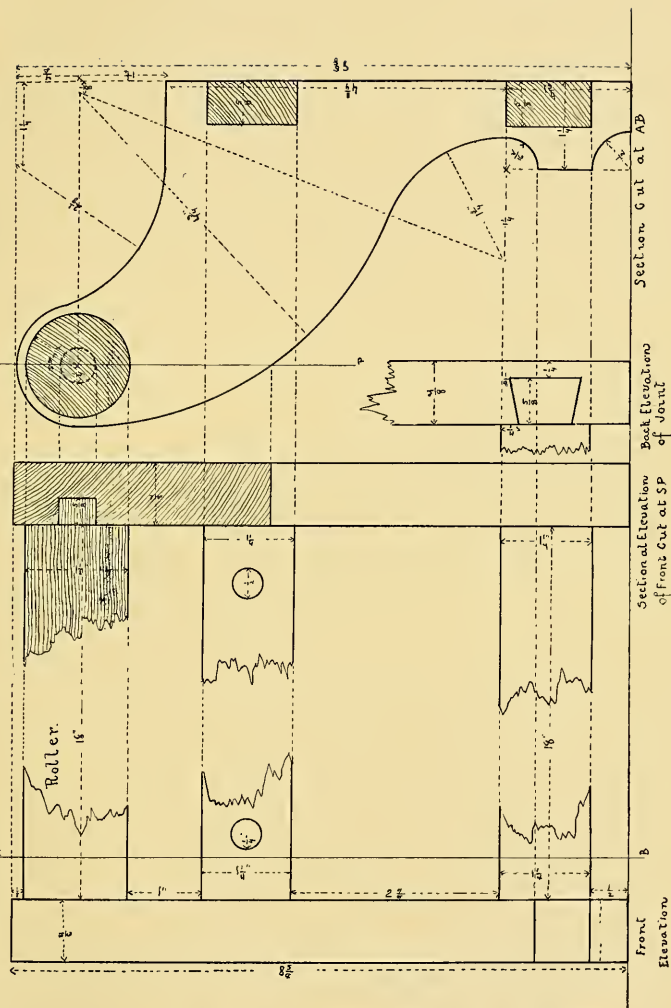


VIII. LONDON. — Board School. Mechanical drawing, preparation for manual training. Pupil thirteen years old.

Wood Veneered
 1 Piece of Basswood $3' 4\frac{1}{2}'' \times 1\frac{1}{2}''$
 27 Pieces of Basswood $60'' \times 1\frac{1}{2}'' \times 1'$
 1 Piece of Basswood $20'' \times 1\frac{1}{2}'' \times 1\frac{1}{2}''$

TOWEL RAIL

J Tolman
 24
 March 14 1898



IX. LONDON.—Board School. Mechanical drawing, preparation for manual training. Pupil fourteen years old.

C.

REPORT OF G. T. FLETCHER,
AGENT OF THE BOARD.

REPORT.

To the Massachusetts Board of Education.

The addition of Hampden County to my field of labor has called for the inspection of schools throughout the western third of the State. One hundred and four towns, having more than sixteen hundred schools, are included in this section. Sixty-four towns, or more than sixty per cent. of the whole number, are rural communities in large measure, forty-four of them not being on the line of any railroad. Thirty-seven of them are without special superintendents of schools. Many of them have a scattered population, with schools from two to eight miles apart, often connected by hard, hilly roads. These conditions make school inspection a difficult work. Sometimes only two schools can be visited in a day; seldom can more than four schools be inspected in that time.

During the year I have visited ninety-two towns for the purpose of school inspection, of conference with school committees or superintendents, or to hold meetings. Through correspondence or interviews with school officials I have kept in touch with the educational conditions in all of the towns of my section.

Considerable educational progress has been made during the year. Not many new schoolhouses have been built, but very expensive ones * have been completed in Springfield and Holyoke.

Some improvement in the appearance and arrangements of rural and village schoolhouses, rendering them more cheerful and comfortable and better adapted to educational needs, is evident. But few schools now have the old-time desks and seats, soiled and hacked by the hard usage of former days. Better conditions in material things promote education.

School Attendance. — The sixty-second annual report of the State Board of Education shows an increase in the average attendance of pupils in the public schools of the four western counties of 2,475 over the record of the previous year. This

* Springfield expended \$363,249.04 for new schoolhouses in 1898; Holyoke, \$262,058.22.

increase must be due to growth of population in the cities and large towns, and to influences that either make the schools more attractive to pupils or compel better attendance.

Consolidation of schools and conveyance of children at public expense have contributed to increased attendance, and the influence of school superintendents has been marked in that direction.

Teachers' Wages. — There seems to have been a small reduction in the pay of female teachers in Hampden and Hampshire counties, and a slight increase in Berkshire and Franklin. It would seem that the State aid of \$2 a week secured by 35 small towns in the four counties for teachers' salaries ought to cause an increase in the average of wages, but this average appears to be lower than in former years.

Teachers' Institutes. — Institutes were held for a day each at Charlemont, Chester, Dalton, Enfield, Great Barrington, Huntington and North Wilbraham. Excellent programs were prepared and able speakers secured. The attendance of teachers and people was large.

Meetings for only a day are valuable. They give school officials and teachers opportunities to become better acquainted. The best methods of teaching the branches taken in the schools are clearly presented. Then there is the inspiration of a gathering of persons having a common purpose. These meetings should be held in such localities as will accommodate teachers of towns where educational opportunities are fewer than in the large cities.

Laurel Park Institute, Northampton. — The eighth annual session was held during the week of June 27 to July 2. The following important subjects were included in the program: algebra, child study, conduct of the recitation, drawing, English literature, geography, geology, health lessons, history, higher life in school, music, penmanship, physical culture, primary work, reading, relation of teachers and pupils, school management, superintendence. The topics were presented in fifty-six lessons, an average of three lessons to a subject.

The attendance of teachers was lessened by the continuance of the public schools of Springfield, Chicopee, Holyoke, Greenfield and of some other towns during the session of the institute. The meeting was one of the most successful ever held at the Park.

Some changes in the time of holding the institute and in the program of exercises are suggested for the coming year. Schools in so many towns will close on or before the twenty-third of June that the institute should open the following week, to accommodate teachers who desire to attend at that time, and it should continue two weeks, so that other teachers may attend.

There has been an urgent call for a session of two weeks, but the State Board of Education could not respond to the request, for lack of funds. We trust a larger appropriation for institute purposes will be made by the Legislature this year, so that the time of the session at Laurel Park may be extended to include two weeks, beginning June 26.

The prospectus for a longer session should include quite a number of addresses by representative educators upon the most important questions concerning the physical, mental and moral training of children, and of the trend of thought regarding pedagogical questions of vital interest to teachers and parents. The work that will most heavily tax the attention and thought of the teachers should be limited to the morning hours of each day, the afternoon being free for a few conferences upon school work, and for social intercourse and recreation. The Connecticut valley is rich in material for historical and geological research. The student of geography and of botany will here find nature responsive to his investigations.

Located on the lines of the two principal railroads running north and south, having near connections at Shelburne Falls, Greenfield, Northampton, Springfield and Westfield with the three roads running east and west, Laurel Park is admirably situated for a summer gathering of teachers. It is near the geographical centre of western Massachusetts. A grove of seventy-five acres, containing within its limits as many cottages, an auditorium seating a thousand people, Normal Hall, seating two hundred and fifty, half a dozen chapels and a large boarding-hall, offer all needed accommodations, including boarding and lodging at reasonable prices. The Connecticut Valley Chautauqua Association, which meets annually at the Park in the month of July, has made the place attractive in appearance and associations.

The success of this summer school for six years led to the opening of the institute at Salem in the normal school building

in 1897, and indirectly to the organization of a summer session of the Hyannis normal school in 1898, which proved to be of great educational value to teachers.

The advantages of a well-equipped normal school building for a summer school for teachers is very apparent; hence a proposition to hold such sessions on alternate years at Westfield and North Adams, instead of at Laurel Park, has been suggested. In considering such a possible change, convenience of location for the teachers of western Massachusetts and facilities for board and lodging at reasonable rates for a large number of persons, must be taken into account. The Westfield normal school has a boarding hall that will accommodate eighty-five persons. The North Adams normal school offers no facilities for board and lodging.

Teachers' Meetings. — Meetings have been held for the teachers of a single town or for a group of towns generally after some time had been spent in visiting the schools of the section, so that topics for consideration at the meetings might have a special bearing upon the needs of the local schools. In some towns I have been assisted by Mr. Sargent, in others by superintendents of schools, committees and teachers. Parents are invited to attend these meetings, that they may become better acquainted with the teachers and with modern methods of instruction. Such attendance of citizens results in the more hearty co-operation of the people with their schools.

Public Meetings. — Public meetings are generally held in the evening, sometimes as introductory to an institute coming the following day. On such occasions the secretary of the State Board of Education, other prominent speakers and the agents of the Board address the people and teachers. Meetings in different towns are held as often as time and circumstances will permit, to awaken interest of the people in educational matters. Women's clubs and other local organizations have lecture courses, in which educational topics have a place. Rev. Edward P. Pressey of Rowe has organized a "brotherhood," having for its objects "good citizenship and Christian culture." At a public meeting held last January very interesting topics were presented by the local clergy, school committee, superintendent and citizens, bearing upon the educational and other interests of the town.

County Associations. — Berkshire held its annual meeting at Pittsfield in January. Franklin County held spring and autumn sessions; Hampden and Hampshire, fall meetings. The exercises were generally of a high order of excellence, and the attendance at all the meetings was very large.

Superintendence. — The only extension of superintendence during the year has been the union of Great Barrington and Lenox, under the law of 1871. The joint committee elected Gilman C. Fisher superintendent.

The great need of special superintendence of schools becomes more apparent every year. Employment of better teachers, better planning of school work, the attendance of pupils, increased interest of parents, economy and efficiency in the use of school money, are evident results. The general and special teachers' meetings held by the superintendent have an influence upon the character of the schoolroom work that cannot be secured in any other way. The frequent visits to the school of one who knows by practical experience how best to perform the duties and meet the trials incident to a teacher's life are of inestimable value.

The law passed last year, permitting towns whose valuation is below \$2,500,000 to unite with towns of higher valuation, should result in a number of unions.

The time has come when Massachusetts should round out the system of public school education by the extension of special superintendence to every town. The district supervision law of 1888, with subsequent amendments to the same, is admitted by educational authorities, national and State, to be the best plan yet adopted anywhere for oversight of country schools. Old districts need readjusting, and this can be most wisely done when all of the towns of the State are included in the system.

State Inspection of Schools. — While this work of the Board of Education is mainly advisory, it is so generally appreciated by the people that its influence is manifest in improvements of school grounds and buildings, more and better appliances for schoolroom work, a higher standard of teaching and more efficient superintendence.

School grounds should have sufficient area to allow of some attention to beauty and comfort through shade trees, and especially in providing opportunity for recreation. The ex-

pense of land in cities renders it difficult or impossible to provide adequate space for school yards; but there is no excuse for the practice that has obtained in the country, of using the highway for school grounds. In some towns it is a pleasure to find that the location of the schoolhouse has received consideration. A yard of suitable size has been inclosed, and a few trees add to the beauty and comfort of the grounds.

Sanitary and Moral Conditions.—The more expensive buildings of modern times are provided with basements containing water-closets that are kept in proper order, and the children are under the oversight of teachers or janitor during recesses. In many country towns and in some villages the outbuildings are a menace to comfort and decency.

The least demanded by health, manners and morals is the erection of proper buildings for boys and girls, at a wide remove from each other. They should have proper oversight from the teachers. Committees are as much in duty bound to see to the condition of outhouses as to give attention to the schoolhouse.

The Teaching Force.—Western Massachusetts has a large quota of excellent teachers, and the work done in many schools is second to none in the Commonwealth. Still, there is much poor teaching, due to lack of competent teachers. Committees in many towns take “home talent,” for reasons of economy or because of local influences. Through the teachers’ agencies and from normal schools many teachers are obtained. Superintendents, in addition to the methods employed by committees, visit schools in other towns, to ascertain if teachers of ability, as indicated by their success, are available. Results indicate that the supply of fine teachers is not equal to the demand, and that the means of knowing what persons have qualifications that give some promise of success in the schoolroom are limited.

Some standard of equipment, ascertained in a reliable way, seems to be desirable. “Home talent” may or may not be good talent. Scholarship, maturity of mind, successful experience in teaching, may be the equipment of persons residing within the limits of a town as well as just over the line or in a neighboring State. The agencies, the normal schools and “piracies” by superintendents have not always furnished good teachers for the schools.

Some Standard.—The other three so-called “learned pro-

fessions" try to protect themselves and the public against imposture and incompetence through special examination and certification. The method is not always reliable, but the result is certainly a public benefit. If teaching is a profession, it should be indicated and protected by some recognized standard of merit that includes knowledge of subjects and method. Persons of good ability, scholarship, training, through school or experience, with ambition to rise higher, would be stimulated by a test of qualifications to secure official recognition. Others would voluntarily retire from the field, or fail to pass examination.

No examination is a sure test of fitness to teach, but some measure of this character would be helpful, especially as lack of scholarship is such an evident defect in many teachers.

Teaching. — By means of courses of study and the grading of pupils, work is defined for pupils and pupils are assigned to positions. These things represent the "mechanics," so to speak, of school life, and may help or hinder real progress.

The teacher should be wise enough to gauge, in a measure, the child's ability, his present knowledge, his needs, and power to accomplish results. Courses and grades must not be allowed to hinder individual progress. Interest in work and will to do it are essential to success.

The teacher's duty in the management of a lesson is mainly fourfold: to place before the child the proper work to be done; to secure from him independent individual effort; to give him information only when it will be of special advantage; and to test the pupil for the results of his application. These are fundamental points in a right method of teaching; the intelligent teacher should be able to comprehend and apply them.

State Aid. — From the sixty-second annual report of the Board of Education it appears that the towns having a valuation of less than \$3,000,000 received in the aggregate \$105,060.88 from the State for purposes of education. This was through the usual distribution of the school fund, the amount paid teachers of "exceptional ability" in towns whose valuation is less than \$350,000, and the reimbursement of high school tuition to towns having a valuation less than \$500,000.

The annual distribution of the income of the school fund to 254 towns of the State in sums varying last year from \$50 to

\$591.71 has been necessary to enable some poor towns to sustain their schools six months in the year, while it has made possible better schools in all of the towns thus aided. It is evident that this fund has not always been used most judiciously for the improvement of the schools. The law of 1896, amended in 1897, provided for the payment of \$2 a week for teachers of "exceptional ability" in towns of low valuation. Thirty-four towns in Western Massachusetts received this aid, in varying amounts, last year. In the schools under the management of the most intelligent committees and superintendents, the addition to the wages of teachers has benefited the schools. Not always has more pay resulted in better work. The "special examination" has not in some instances been of a kind to determine "exceptional ability."

Some standard of examination should be fixed that will not admit teachers of less than "ordinary ability" to participation in the increase of wages. School officials report as follows: "We have been able to retain good teachers, who would have left our schools but for the increase of wages." "We have secured better teachers than before." "We did the best we knew how, but the quality of the teaching has not improved."

The final test of "exceptional ability," entitling teachers to the State aid, should be the measure of success in the school, grading increase of salary upon that, from nothing to \$2 a week.

Upon the whole, the schools have been improved by the additional aid from the State, and much better results are to be expected when more discrimination is used in the employment of teachers. "As is the teacher, so is the school," may be supplemented by another truth, "As is the supervision, so is the teacher."

It is because of the outlay of money by the State for the educational purposes stated, as well as for the support of normal schools and teachers' institutes, and because every eligible child is legally and morally entitled to good school privileges, that the Commonwealth should see to it that its great expenditure is wisely administered, by making effective supervision of schools its universal and permanent policy.

G. T. FLETCHER.

D.

REPORT OF J. W. MACDONALD,
AGENT OF THE BOARD.

REPORT.

To the Board of Education.

The year 1898 has been a very busy one, and I have not been able to respond to all the calls that have come to me.

As I review the work of the year, the feature of it that I regret more than any other is that the time exacted for miscellaneous work, such as arranging teachers' institutes, helping at teachers' meetings and public meetings, and carrying on official correspondence, too much curtails the time for school visitation, and would reduce it a great deal more, if most of the work of letter writing were not done evenings. I have, however, tried to give every available hour to visitation of schools, for in no other way is it possible to understand the problems that confront the teacher.

NORTH SHORE TEACHERS' INSTITUTE.

North Shore Summer School Association. — One of the pleasantest things in the work of the year just finished, although it involved a large addition to my evening labor, has been the part I have taken, in connection with the officers of the North Shore Summer School Association, in organizing and conducting the North Shore Teachers' Institute, which was held in the Salem Normal School building from the 5th to the 9th of July. There was an aggregate attendance at the meetings of about 700, — an increase, though not a large one, over the attendance for the summer of 1897, notwithstanding the imposition of a general fee of \$1.50 per student, which we feared might have a tendency to reduce the numbers. If the many kind, appreciative and complimentary expressions that reached the management can be regarded as evidence, nearly every exercise on the program for the week was highly satisfactory and helpful. If it is true, as it seems to be, that the majority of

the teachers attending this institute have carried away from its meetings a higher professional ideal and ambition, to say nothing of the professional or academic instruction they may have incidentally received, then the money and labor put into it has been well spent.

Function of the Summer Institute. — It may be well, once for all, to have it clearly understood that it is not the purpose, and it is not in the power of these summer institutes, holding for one or two weeks only, to furnish in full, or with any approximation to fullness, either the academic or the professional education that will fit one to be a teacher. Those that are very defective in these particulars should seek a remedy in the proper institutions, or at least in summer schools where the sessions are longer, and where more time can be devoted to fundamentals. The Salem Institute is chiefly designed for teachers who already have at least a fairly good all-round preparation for their work, and, what is of equal importance, a desire *to grow professionally* and to keep in touch with all that is new and progressive in educational theory and practice. Teachers cannot do this by means of educational books and papers alone. They must hear with their ears the advocates of new ideas plead for them, or perhaps the friends of old ideas defend them. Face to face with the speakers, and in the presence of large numbers whose thoughts are all centred on the same subject, each one receives a helpful awakening and inspiration, even though he may not agree with the ideas expressed, or may find in them only familiar principles which he has always followed. It is, then, for the live, progressive teachers that such institutes as this at Salem should provide. That this class of teachers predominates here where the attendance is voluntary is easily perceived by instructors, who have an opportunity to compare the spirit that pervades the classes here with that at gatherings where teachers attend on compulsion, or because a day for that purpose is given them out of school time.

Two Classes of Teachers sparingly represented. — At meetings where the attendance is voluntary, there are two classes of teachers that are sparsely represented, — classes that it seems to me are steadily growing smaller in this State. One is of those who are ignorant and incompetent, but do not realize it;

the other, an even more hopeless set, is of those who, by virtue of some original preparation or training, think "they know it all." The observation, notwithstanding its triteness, seems never to have reached them, that no education, however complete, lasts very long unless kept alive and replenished by constant questioning and investigating, and that no one becomes so unprogressive and narrow as the educated person who has ceased to doubt and inquire.

One thing is certain, the institutes do not lose much by the absence of teachers of either of these sorts, and it is doubtful whether the general cause of education does. All progress is of those, be they many or few, who are teachable and open to suggestion, desirous of the best, and willing to give their own time and means to acquire it. These lead in all improvements, and the rest in time follow on in imitation.

Too Few High School Teachers.—While the large attendance last July was very gratifying to those who had the institute in charge, it was in one respect somewhat disappointing. Besides the primary and grammar departments, there was a separate high school department. Three of the most successful secondary school teachers in the State in their respective lines were engaged to give instruction in high school studies, and it was believed that, with the general lectures on pedagogy, an instructive high school program was offered. Indeed, many superintendents and teachers of the lower grades elected part of their subjects from the high school section, so that some of the classes were well attended, but the number of high school teachers was disappointingly small. It is not, however, difficult, it seems to me, to perceive the chief reasons for this, and some of these reasons it seems not in the power of those who conduct the institute to remedy. It was, therefore, doubted by some whether it was best to continue the high school section; but, owing to the large number of other than high school teachers that wanted it, it has been decided to continue it. It is the general belief that indirectly at least it is productive of much good.

How Time was saved.—As the length of the session is limited, it is important that not a single hour of it be lost in the organization of classes and the distribution of tickets. To

accomplish this requires a good deal of work in advance, and the generous co-operation of superintendents. In the printed program, as sent out to teachers, each subject offered is given, with the name of the instructor or speaker, the hour on which it comes, and the number of the room assigned to it (see secretary's report, pages 183-186). The programs are sent out about the last of April. This enables teachers to select their courses and procure their tickets in advance. A great many do so, and when they arrive at the building on the first day, they know just where to find what they have selected. Hence the exercises can begin promptly on the very first hour.

Cost of the Institute. — The total cost of the institute was a little over \$1,000. All the instructors and speakers were paid, excepting Dr. Frank A. Hill, Mr. G. T. Fletcher, Superintendent J. B. Gifford, Superintendent A. L. Safford and myself, who gave our services free. Also all the members of the North Shore Teachers' Association, who assisted in the management of the meeting, gave their services. Of these, in addition to Superintendents Gifford and Safford, mentioned above, the services of Superintendent J. W. Perkins of Salem, Principal G. P. Balch, then of Swampscott, Superintendent W. O. Cartwright of Georgetown, and Principal Frank E. Hobart, then of Peabody, deserve special recognition.

Importance of a Small Membership Fee. — The best way to raise the money to defray the expenses of this institute is a matter that has been well considered; and it is the opinion of all interested, that, while the State, in accordance with its long-standing policy of making an annual appropriation for the support of teachers' institutes, may properly be asked to assist, it should not be asked to pay all the cost, but that a fee sufficient to meet at least half the expense should be charged the teachers who attend. The fee for the last meeting was \$1.50, and worked satisfactorily. It is believed that this fee gives the teacher a sense of greater personal interest in the institute. At any rate, it keeps away a floating crowd of aimless loiterers, who infest such gatherings where all is free. But, better still, it is encouraging and refreshing to see that so many teachers are willing to give of their own time and money for the opportunity or for the expectation of self-improvement. It is in delightful contrast with the spirit shown by what seems to be a large

number — possibly a majority — of the teachers of the State, to attend no educational meeting of any kind unless it comes on a school day that “is given” them for that purpose.

An Unprofessional Spirit. — This spirit of reluctance to use other than school days for professional improvement is especially seen in the experience of our county conventions. There is a feeling, not without cause, among superintendents and members of school committees, that schools are closed for special occasions altogether too frequently, particularly during the fall. After the long vacation, with the Saturday holiday every week, these special closings are not needed by either teachers or scholars, and are a positive injury to the work of the school; but they seem forced by causes that cannot be helped. But, no matter how many times the schools may have been closed for other causes, there is a large body of teachers in each county who will not attend the conventions unless a special day — not a day on which the schools have to close for some other purpose; the teachers have that, any way — is given them to attend. The usual reason given for claiming this favor is that the conventions are for the benefit of the public schools, and this is accepted as proof that the public schools and not the teachers should lose the day. Is such a conclusion creditable to the teacher? Is there not rather a moral obligation resting on those who accept positions to teach in the public schools to give their own time to professional improvement? Or shall they say to the public, “You have taken us as we are; now, if you want us to improve, you must bear the cost”? What teacher would dare to teach his pupils such a code of morals for their guidance in other occupations? And is not the teacher manifesting a pitiable lack of gratitude for the education that he has received free at the public expense from the primary school up, even through the normal school, perhaps, if now he says to the public that is giving him employment, “If you want me to improve, you must offer me a bonus”?

GENERAL CONDITION OF THE SCHOOLS.

A Progressive Spirit Noticeable. — In regard to the general condition of education throughout the State, the spirit of improvement and progress seems everywhere to prevail. There is the same generous expenditure, as far as means will permit,

for school equipment; the same eagerness to enlarge courses of studies with whatever seems to make for a broader and richer education; the same seeking for whatever is best in method and devices; and the same earnest inquiry into the laws of mental and moral development, as there has been for the past fifteen years or more.

Is Innovation necessarily Improvement?—In all this there is much that must be tentative and experimental, and it would not be strange if at times we have gone fast rather than sure, and have mistaken innovation for improvement. The word *new* of itself has a good deal of prestige; and, as no one likes to be behind, there is a danger that the new may be taken without due consideration. It seems to me that there is a tendency to introduce prematurely not only studies as a whole, but certain phases of studies. I might mention what have seemed to me evidences of this from various subjects, as arithmetic, history, grammar, drawing or composition writing.

An Illustration from Geography of Premature Teaching.—I shall mention, however, only one from geography. A teacher was endeavoring to instruct her class, a fifth grade, in the matter of cloud, rain and dew formation, etc. She was skilful, and did her best, giving to the subject several lessons; but, after all her pains, an inquiry elicited from the class the opinion that the frost which gathered on a window pane was frozen air. And they gave this opinion, too, knowing that this frost “melted into water.” Some may claim that they can teach a class of this grade to understand this principle. Possibly, but I doubt it. It is more likely that the way in which children will learn and recite explanations that have been made to them is mistaken for understanding. Still, it is possible that a fifth grade can be taught to understand such principles as this, but it will cost a great deal of time to do what a few years later can be done much more easily.

May not Latin be taken up prematurely?—It may be a question whether the introduction of Latin into the grammar school is not another case in point. This step is usually defended on the ground that the younger the scholars are, the more readily they learn a language. There is, however, a manifest fallacy in this argument, as applied to the study of Latin. If the aim is to learn to speak a living language, the

younger the learners are, the more accurately they will acquire the correct pronunciation. But older pupils will do everything else, as getting the vocabulary, learning the grammar and acquiring the ability to translate, and will even learn the pronunciation, where it is an artificial one, as in the case of Latin, much faster than younger ones. This is confirmed by the fact that in the seventh and eighth grades it requires about double the time, and in the ninth grade about one half more time, to accomplish the same amount of Latin as it does in the tenth grade. The Latin language is not studied for the purpose of using it as a spoken language; and, if it were, it is not a question of acquiring a natural living pronunciation of it; hence the one particular in which younger scholars would have the advantage is eliminated. There is no doubt that more can be done in Latin by beginning it early; but it costs a greater amount of time, while at the same time it is not altogether settled that a modern education needs more knowledge of Latin.

In saying this, I would be understood, not as arguing against the introduction of Latin in the grammar grades, but as endeavoring to show the need of deliberation before taking such a step.

A Healthy Conservatism.—There is undoubtedly a more conservative disposition manifesting itself in many sections, as will be shown, I think, in not a few superintendents' reports for the present year. It is not a retrograde sentiment, but a healthful inclination to prove what has been done before making further innovation, mingled with just doubt enough of present methods to insure close inquiry and observation. The following clipping, from the program of a teachers' meeting held under the direction of one of our most thoughtful superintendents, will show the trend to which I refer:—

Discussion: We have been subordinating quality to quantity. Modern pupils read a great deal of literature, but they are trained to get only the outside elements of it. They lose the fine distinctions they would make if better trained. There is no other way so good to produce discrimination in reading as the habit of oral reading. There should be a medium between the old method of spending hours on a single passage, and the new of counting results by number of pages read.

HIGH SCHOOLS.

In respect to high schools, the extended report that I made to your Honorable Board last year, and the plan for an equally full one the coming year, will excuse a brief and general statement of present conditions.

Some of the problems that confront the high school, demanding serious consideration, and that have been discussed at various times and places during the past year, are the following:—

1. *Demands of the Colleges.*—One problem concerns the ability of the high school to keep up with the exacting demands of the colleges in their requirements for admission.

If the purpose which is now strongly advocated in certain quarters is effected, of bringing down into the high school all of those studies now in the college that are considered of an elementary or secondary character, in order that the colleges may be able to give more advanced instruction, it would seem that one or two years will have to be added eventually to the public school course. It would also seem probable that this would reduce the number of students entering college.

2. *Elective System.*—A second problem relates to the extension of the elective system to single studies instead of to fixed courses, the prevailing practice hitherto. Should all subjects in the high school be elective, or should some (or all) be required?

The elective idea has made wonderful progress in the last five or six years, and would undoubtedly have made more, were not the small number of teachers a serious obstacle to it in the smaller high schools. It is generally reported as working satisfactorily, but as needing careful managing; and some teachers who have carried it farthest are inclined to think that it can be carried too far. It is generally agreed, too, that the election of studies should be by advice and direction of teachers and parents.

3. *The Course of Studies.*—What should constitute a high school course of studies,—a certain number of studies completed in a certain number of years, that is, by classes; or a certain amount of work, whatever the subjects or the time, as

measured by some practical unit, the recitation periods, for example?

This latter plan would more or less break up the class idea, by permitting scholars to complete a course of studies in three, four or five years, according to ability. It will need to be considered whether this might not stimulate to overstudy ambitious pupils who do not need any more incentive than they now have, while lazy pupils could indulge their bad habit.

4. *Short Courses of Studies.* — Should there be short courses of studies? * That is, should there be courses requiring only half or three fourths the amount of work of the maximum courses? In other words, are the two and three years' courses found in many high schools advisable and just?

Why should pupils who have finished the grammar school work satisfactorily be told that, if they wish to go on, they must continue for four years, otherwise their study will receive no recognition, and they will incur the opprobrium of being deserters? Why may they not honorably and profitably pursue a course of studies for three or even two years, if they wish to continue in school no longer than this?

5. *Intensive Study.* — Should *every* subject offered in the high school be studied intensively, with a view to depth in training; or, with some so studied, should many short and elementary courses of study be allowed in other subjects, in order to broaden the pupil's acquaintance with the world, and increase the general intelligence? This involves another question. Most subjects are capable of being divided into two studies, as distinguished by method of treatment; the one elementary, dealing with the nature and the causes and results of facts; the other advanced, seeking to exactly measure and scientifically generalize and interpret facts. The qualitative as distinguished from the quantitative study of physics and chemistry will illustrate this difference. Should not all subjects that admit of this division, as most do, be offered in two courses, — an elementary or minimum course, and an advanced or maximum course (including the minimum)? In such a case the pupils

* By "course of studies," I mean the whole amount of instruction offered in all subjects constituting a high school course; and by "course of study," that offered in a single subject.

might be required to elect at least two or three of the maximum courses of study, supplementing them with a sufficient number of the minimum courses to make up the whole course of studies, thus combining depth with breadth. My own experience with pupils has been that generally they do not differ so much in their special talents for certain subjects as they do in the depth to which they can study a subject profitably. Hence pupils who cannot go as deep in mathematics or physics, for example, as others can, may yet receive benefit from an elementary course. Besides, while it is well to know a good deal about something, it is also convenient at times to know something about a good many things. One may not be a specialist in astronomy, but it is worth while to know enough about astronomy to be able to read intelligently an article on that subject by a specialist.

6. *Preparation for Active Life.* — Another problem relates to strengthening and improving the high school as a finishing school; that is, putting into it as great a zeal and ambition to fit for active life the great body of pupils who are to end their school life here, as it now has to fit those who are to go on to higher institutions, to pass the necessary examinations.

Without dwelling on the many phases of this important problem, which sooner or later must receive attention, if Massachusetts is to retain her industrial eminence, I would refer the reader to Appendix I. to this report, where will be found extracts from a letter published in the "Boston Evening Transcript" of Dec. 31, 1898, written by Mr. D. F. Murphy, an American at present living in Kingston, Jamaica. Mr. Murphy began a number of years ago to study the Latin States of America immediately south of us, with a view of ascertaining what opportunities they offered as a market for American manufactures; and, as a result of his investigation, he established and for several years has successfully conducted a large business at Kingston. He asserts that there is a rich field in Central and South America for our young men to establish commercial houses for the sale of American goods, if they are properly educated for the business. Mr. Murphy is a man of keen powers of observation and of broad intelligence; and, while many may not agree with all his views, what he says merits thoughtful consideration.

7. *Examinations.*—Important questions have arisen with reference to limiting and subordinating the use and management of examinations, and especially with reference to determining the value and effect of daily marking as a goad to study. (See Appendix II. of this report.)

8. *Co-operation of the Home.*—How shall the co-operation of the home be secured? Of the many ways in which intelligent parents can increase the efficiency of the high school, the following need special emphasis:—

First, they should take care that the physical conditions of their children are favorable to mental work.

Second, they should restrain that excessive social dissipation that is the bane of good school work.

Third, they should establish and enforce hours for systematic home study, not alone for the sake of improving scholarship, but even more for the cultivation of habits of study and application.

Fourth, they should furnish the encouragement and aspiration that will make the school the primary rather than a secondary thing in their children's minds.

Through the ignorance or indifference of parents, the public high school, as compared with a good boarding school or academy, is at a great disadvantage in work that calls for application and study. The boarding school has charge of the entire time of the pupil, and can regulate the hours of recreation and study. Thus the pupils acquire systematic habits of working, and do not come to their studies or the recitation room tired out by social dissipation, or for want of sleep. On the other hand, boys and girls often go home from the high school to an afternoon of distractions. A hundred petty things keep their minds from study, or, if they attempt to study, from close disciplinary application. Companions call, and the time is spent in profitless chatter; petty things occurring on the street or in the neighborhood have their attention the whole afternoon; the evenings are given to calls, parties and entertainments. For not one single hour a day are these scholars trained to sit down by themselves, and, abstracting their thoughts from all disturbing influences, to apply their minds systematically to work. When they are not engaged in sports, they are thinking of sports and talking of sports.

There are homes, it is true, where the conditions are more favorable to school work, but they are the exceptions. There is no one reform that would do so much to increase the efficiency of the high school as the intelligent co-operation of the home in the particulars I have mentioned.

9. *Methods of Teaching.* — The best methods of teaching the several subjects, involving questions of their special functions and values in education, merit earnest thought.

The working out of this problem, or rather of this great group of problems, will much depend on the solutions of some of the preceding problems; for example, of the one proposing both minimum, or elementary, and maximum, or advanced, courses in certain subjects. In case this plan should be adopted, the elementary course should receive a radically different treatment from that applied to the advanced course. Nor will the elementary course consist of a portion of the study, say, of two hundred pages of a text-book, while the advanced course embraces four hundred. Both should cover practically the same ground, but the one should deal with the subject by way of the motor faculties of the mind, as it were, and the other by way of the logical.

Furthermore, in considering educational values, it must not be forgotten that no subject has the same value for all minds, just as no one article of food has the same nutritious value for all persons. "What is one man's meat is another man's poison," and a study that is good for one pupil may be a waste of time for another.

It seems to me that, next to the personality of the teaching force, and more important than the subject taught, the proper treatment of the subject is the means by which high schools will be able to hold a larger proportion of the scholars that enter them. With nearly a third of the entering class dropping out by the end of the year, it is worth while to seek the causes, and, if possible, find the remedies. One of those causes, I am sure, will be found to be a too abrupt change from the methods of the grammar school to a method in the high school for which some pupils are not suited.

It may be said, at this point, that there are marked evidences in many respects of improvement in teaching and treating sub-

jects. This is now most observable in translating Latin and Greek. Although teachers find it hard to give up their faith in grammar and parsing, and to break away from the ways in which, while scholars, they themselves have been taught, they are rapidly giving up the old literal translation, and its distorted English. The danger now is that they, or some of them, will go to the other extreme, and will permit translations so loose and free that all the finer shades of thought and expression are completely lost. Teachers should remember that the aim in translation should be to express in idiomatic English the full and exact meaning of the author.

The Grand Problem.—To return to the problems I have given as confronting the high school, the list is by no means a complete one, nor have I meant to discuss them; but merely to state some of the principal ones, with suggestions that must be taken into account in getting at their solution.

These problems, moreover, are all intimately connected, as has been said, and are all subordinate to the grand problem, how to organize and conduct a high school so that its product shall be the greatest possible number of self-reliant, intelligent, upright and honorable men and women. There is a complaint, quite general among men of affairs, that the high school is not in all respects doing this. It is asserted, though perhaps unjustly, that its graduates come forth more or less helpless and dependent, and educated away from rather than for the vocation for which they are adapted. The absorption of business by large concerns has perhaps made it more difficult than formerly for the individual to carve out for himself an independent career; and it is charged that the high school graduate shows rather less courage and disposition to commence low down and undergo the training necessary to overcome the increased difficulty. Hence he is more inclined to seek permanently dependent positions, especially in the civil service, where the pay, in the beginning, at any rate, is better, the work less arduous, and the place more secure, though the prospects for advancement are slight. If there is a lack in high school graduates of manly individuality, can the public school system be held responsible for it? In view of this question, I would call attention to Appendix II. of this report, containing extracts from a book

entitled "Anglo-Saxon superiority, — to what it is due," by a French writer, Edmond Demolins, and translated by Louis Bert Lavigne. Chapter I., from which the extracts are taken, is headed, "Does the French school system form men?" a question which the author answers in the negative. Conditions in our own country respecting the desire for government positions are very far from those described by the author as existing in France, and it is possible that his picture is somewhat overdrawn; but the extracts will be found to contain many suggestive thoughts even for us, with whom governmental paternalism seems to be on the increase. On the other hand, what he says of the effects of making the ability to pass examinations the chief aim in education describes a state of things not entirely lacking in Massachusetts.

One thing occurred during the year, affecting high school legislation, that was somewhat of a surprise and disappointment to those acquainted with the circumstances. I refer to the decision of the supreme court in the case of *Hurlburt v. the town of Boxford*.

It has long been the policy of the State to secure to every child within its borders the opportunity of a high school education. As towns below a specified size are not obliged to maintain high schools, a law passed in 1891 required them to pay the tuition, under certain conditions, of any of their pupils who chose to attend the high schools of other cities or towns. The law as changed in 1894 read as follows (the *Italics* in section 3 are mine): —

[CHAPTER 436.]

SECTION 1. Any town in which a high school or school of corresponding grade is not maintained shall pay for the tuition of any child who with the parent or guardian resides in said town and who attends the high school of another town or city, provided the parent or guardian of such child before such attendance obtains the approval of the school committee of the town in which the child and parent or guardian reside.

SECTION 2. If any town in which a high school or school of corresponding grade is not maintained neglects or refuses to pay for tuition as provided in the preceding section, such town shall be liable therefor to the parent or guardian of the child furnished with such tuition, if the parent or guardian has paid the same, or to the town or city furnishing the same, in an action of contract.

SECTION 3. No member of the school committee of a town in which a high school or school of corresponding grade is not maintained shall refuse to approve the attendance of any child in the high school of another city or town, charging a reasonable amount for tuition, if such child is properly qualified to enter such high school, *unless said town is prepared to furnish such child proper instruction in its own schools in the studies usually taught in a high school.* If the school committee of such town unreasonably refuses to grant such approval such town shall be liable for the tuition of such child in the same manner and to the same extent as if the parent or guardian of such child had obtained the approval of the school committee.

SECTION 4. Any town in which a high school or school of corresponding grade is not maintained, but affording high school instruction by sending pupils to other towns, may pay the necessary transportation expenses of such pupils.

SECTION 5. Chapter two hundred and sixty-three of the Acts of the year eighteen hundred and ninety-one is hereby repealed. [*Approved May 26, 1894.*]

It was thought that this law was carefully framed and worded, and that by it a town not maintaining a high school must send its pupils to a public high school of some other city or town, and not to a private school. For, to say nothing of the wording of the above law, the eighteenth amendment to the Massachusetts State Constitution, approved in 1855, forbids the payment of school money to a private school, that is, one not under the supervision of the school committee of the town where it is located. Therefore, if a town cannot pay tuition in a private school, it seemed reasonable that it could not compel its pupils to attend one. This amendment reads as follows:—

ARTICLE XVIII. — All moneys raised by taxation in the towns and cities for the support of the public schools, and all moneys which may be appropriated by the State for the support of common schools, shall be applied to and expended in no other schools than those which are conducted according to law, under the order and superintendence of the authorities of the town or city in which the money is expended, etc.

Acting, as he supposed, in accordance with the right that the law cited above gave him, Mr. Hurlburt, living in the south part of Boxford, sent his daughter to the Danvers high school, although the school committee of Boxford had refused their

approval, on the ground that the daughter could attend, without cost to the town save for books, a small private school in the northwest part of the town, known as the Barker free school. This school was in no sense under the supervision of the school committee of Boxford. It was also inconvenient of access for pupils of the part of the town where Mr. Hurlburt lived, while the Danvers high school was easy of access by railroad.

After several futile attempts to induce the town of Boxford to reimburse him the amount which he had paid for tuition, Mr. Hurlburt brought action to recover it. The superior court ordered judgment in his favor; but the case was appealed, and the supreme court reversed the decision. The opinion of the court is as follows:—

LATHROP, J. This action is brought under the St. of 1894, c. 436; but we see nothing in the act which authorizes a finding for the plaintiff. The agreed facts show that there is maintained in the defendant town a school of corresponding grade to a high school. While this school is not maintained by the town, there is nothing in the act which requires it to be so maintained. Nor is there anything in the act which requires the school to be approved by the State Board of Education.

In many towns in the State there are academies or schools of a grade equal to that of high schools, maintained from the income of funds left for the purpose, and which are free to the children of the inhabitants; and we have no doubt that the act before us was drawn with this fact in view. There is no reason why a town which is not obliged by law to maintain a high school, and which has a school of equal grade within its borders, should be obliged to pay for the tuition of a child of one of its inhabitants in another town, because the parent of the child prefers one school to the other. And, as we construe the statute, this is not required.

The judgment entered for the plaintiff must be reversed, and judgment entered for the defendant.

So ordered.

Those who believed that the law was on the side of Mr. Hurlburt in this case relied confidently on the passage in *Italics* in section 3 of the law cited above. It was believed that that clause effectually debarred any town from making a private

school an excuse for not giving its pupils the opportunity for high school instruction. The court, however, seems not to have considered it of any weight, for the opinion says: "While this school (the Barker free school) is not maintained by the town, there is nothing in the act which requires it to be so maintained."

The law as left by this decision of the supreme court is greatly emasculated. It would seem now that if any person should see fit to open a private school in any one of the towns affected by this law, and should advertise to teach some high school studies, that town would at once become exempt from the provisions of the law; and this, too, though the school committee and the town had nothing whatever to do with the opening of the school. But, while it is hard to believe that this was the law passed by the Legislature, it is the law as it now stands, and it should be amended at once.

Respectfully submitted,

J. W. MACDONALD.

Dec. 31, 1898.

APPENDIX I.

EXTRACTS FROM A LETTER WRITTEN BY MR. D. F. MURPHY OF KINGSTON, JAMAICA, AND PUBLISHED IN THE "BOSTON EVENING TRANSCRIPT" OF DEC. 31, 1898.

A few months ago a "Transcript" copied from the "Atlanta Constitution" an interview of its reporter with Mr. Tilly Haynes of Boston. Mr. Haynes's views were that the advanced education of the New England schools did not allow time enough for the pupils to acquire a thorough knowledge of arithmetic, geography and composition, or at least those of them who contemplated a business life, which they should enter early at the foot of the ladder. The writer little thought then how soon he should be confronted with the truth of Mr. Haynes's views.

From time to time during the past ten years the columns of the "Evening Transcript" have advocated wholesale houses in the Latin-American countries of the south as the best means for creating a large export trade. That way would be more permanent and profitable than the old way of trying to get southern merchants to come to United States markets to buy. This last way is transitory, and to most buyers and northern sellers is unsatisfactory in results.

One of your Boston readers ten years ago followed the advice given in your columns then, and he transferred his business and stocks of goods to a tropical city. He finds more business can be done so than by keeping the goods in Boston and sending pictures of them and price lists to southern merchants. This same view prevails now among many Boston business men. Capital is already raised in Boston for two establishments at different places in Latin America. Nothing hinders an immediate beginning but finding men qualified to be resident managers. It is essential that they should be adepts in arithmetic, besides being experts in dry goods. Several young men sought the positions. They were bright and intelligent, all the better for being well equipped with "advanced education," which would make them welcome guests in the homes of the south; but their knowledge of arithmetic was too superficial to make them of any value. One man, who had within him the material for becoming an

able business man, was anxious for the position. He persisted that he could figure. He could multiply, add, subtract and divide rapidly, and that, he claimed, was sufficient. He was told the business was to be conducted in two currencies. One was decimal gold dollars, which just then was at $163\frac{1}{2}$ premium in the native paper currency. How much of the paper currency would you want to procure a sight draft payable in London for £204 15s. 10d.? Answer in dollars. Allow $1\frac{1}{4}$ per cent. exchange on London. The answer was, "I am a dry goods man, not an accountant."

The men who can apply their arithmetic to solving mechanical, manufacturing or commercial problems are becoming hard to find, when it also required that they should have a knowledge of some branch of merchandise.

One thing should be considered, the subdivision of work in a modern commercial or mercantile house is as great as in the modern factories. In the office of the former one first-class accountant and a few subordinates can run twenty to thirty salesmen. The latter, or a majority of them, having no practice in mathematics, excepting in the simplest kind, soon lose what they brought away from school. They lose it chiefly because the science of numbers had not entered beyond the memory. Had it entered the understanding it would not be forgotten.

Little do Englishmen and Germans who are at the heads of commercial houses in these latitudes know of natural philosophy, political economy, physiology, etc., but they can figure safely and quickly. It is said "trade follows the flag." That is not so. Well-managed trade selects the flag offering the lowest freight rates, speed, insurance and all other things considered. It is more correct to say that trade follows those who can figure. Hence the trade of our continent is increasing every year in the hands of English and Germans.

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About four years ago it was suggested to Gen. Francis A. Walker that a class be formed in the School of Technology (Boston) similar to that in the University of Heidelberg for training young men for foreign commerce. The reply was to the effect that the foreign commerce was too small to afford positions for the young men. Two thirds of what would be taught for foreign trade is, it is true, the same as is required in mercantile and manufacturing houses in the United States, with the added qualities of accuracy, clear and concise diction. There must be, however, no entries in books or documents, that have to be explained (custom house officers must see the story clearly and plainly written, they will not hear about it). All these qualities are indispensable in foreign commerce, and none too plentiful in United States offices.

The educational system of Massachusetts is supposed to excel that of any other country. It is an ungracious task to have to point out its weakness in the cases named.

Not one, nor twenty, but hundreds of young men who are skilled in the purchase and sale of the products of New England factories, if commercially fitted, could establish fine business houses in the southern countries, or as business managers obtain salaries as large as they have at home with an interest in the business. Better drill the men for commerce than for war. The conquests are greater.

The stock of goods in their care is purchased by United States weights and measures at gold value. Ocean freights are payable in gold. Lighterage, customs duty and inland transportation are in paper currency. All these payments must be levelled into the paper money of the country, say at 183 premium for gold. That constitutes the landed cost of the goods in paper money in the Latin-American store. The next step is to transpose the pounds, yards, gallons, square and cubic measurements of the United States into the metric measurements of Latin America by the aid of the metric tables. This done, and the merchandise is ready for sale at prices and measurements which the people of the country understand. It is surprising how many young men having the other qualifications required are incapable of applying simple arithmetic to these simple sums of direct or inverse proportion.

Creole clerks and business managers are admirably schooled for business. That which is taught in advanced education in the north they do not know even by name; but they are excellent in mathematics, correspondence and commercial usages. The lands of the south being prodigal in returns, the Creole inherits wastefulness in time, material, effort, concentration of power and calculation on the object to be attained. To obtain the Creole's best requires a New England head to direct. If there is neglect of arithmetic amongst young men not occupying the position of accountants, there is still a greater neglect of another of the old-time school studies which preceded the advanced education. This is widespread and most prominent among the heads of large manufacturing establishments. Evidently these men can figure, as we can see by their success in the home market. Thousands of them are now endeavoring to create an export trade, but therein they show a lamentable ignorance of geography.

About a year or two after the passage of the reciprocity treaties there were wide-spread efforts of manufacturers to create a foreign demand for their goods, stimulated by the supposed aid to be had from the Bureau of American Republics in Washington, which, by the way, is about the most useless institution of the United States government. The writer has had bushels of advertising literature,

and, as wholesale houses and little retail shops here are classed by mercantile reports in United States as "merchants," the loads of mail bags by the weekly mail from the States contained a liberal supply for all; sometimes finely bound illustrated books, catalogues, price lists, circulars, soliciting orders for mowing machines and hay-raking machines from countries where the grass is forever green and hay never made; cotton mill machinery and mill supplies extensively advertised where a yard of cloth was never made; fur and flannel lined boots "at cut prices for export trade. If you send us an order for five hundred dollars worth, shall give you sole control of our goods in your country;" improved steam-heating apparatus for houses, churches and halls, where our longest-felt want is a means of turning these buildings into refrigerators; water-proof ulsters, — "our own patent, shall make forty per cent. discount for export," and innumerable other things which it is as senseless to advertise here as to advertise ice-making machinery in North Greenland. Very much of this literature is elegantly made. . . . There is a vim and push, regardless of expense, about it characteristic of the west. But little of it comes from east of the meridian of Pittsburg. The most unexpected feature of it is that the language spoken by those to whom it is addressed is not considered. The British West Indies, Honduras and Guiana receive as much of it printed in Spanish as in English; and the same is the case in Latin-American countries on the continent.

This "movement" to create exports of small wares and domestic and personal wares has ceased. Mail bags, not a quarter part as many as there used to be six months ago. It showed enterprise, energy and a lavish outlay of money. The losses would have been much less if physical, political and commercial geography had not been ignored.

Those manufacturers must have supposed that the conditions of life in the tropic zone were the same as in the United States.

This laxity in the primary branches of education is not confined to the industrial classes. During the last years of President Arthur's administration one hundred thousand dollars was appropriated by Congress to defray the expenses of a commission to the southern countries, for ascertaining the opportunities there for United States exports. The report tells enough. It was a wonderful one. It was published by the United States government soon after the return of the commission. Here is an extract from it; it has much more of like nature: —

"The consumption of kerosene oil cannot be much increased in the southern countries. Only a little oil is used there, because, the nearer you get to the equator, the longer the days."

The general tenor of the report was unfavorable to an export trade, because the partisan idea in United States politics at that time was that low tariff and export trade were concomitant. Had the majority

of the statesmen of the House and Senate, during the debates on the tariffs, and their effect on export trade, at least in the western hemisphere, known more of the primary branches of education, their commercial geography would have told them that three quarters' part of all the imports of the southern countries had free or indigenous raw material for their manufacture.

D. F. M.

APPENDIX II.

EXTRACTS FROM CHAPTER I OF "ANGLO-SAXON SUPERIORITY; TO WHAT IT IS DUE," BY EDWARD DEMOLINS.

Ask a hundred young Frenchmen, just out of school, to what careers they are inclined; three quarters of them will answer you that they are candidates for government offices.

The ambition of most of them is to enter the army, the magistrature, the *ministères*, the civil service, the finances, . . . the public libraries, etc. Independent callings, as a rule, only find their recruits amongst young men who have been unsuccessful in entering these careers.

Of course the State cannot accept all these candidates for public functions; a certain number only must be picked. Now, this selection can only be exercised through the means of examinations, influence or birth. Selection through birth and influence is only exceptional and accessory; examination is the great entrance door to these different careers.

To be successful at the examination is therefore the young Frenchman's chief preoccupation, since all his future hangs on this first success; so that families will employ those means that are best calculated to ensure success. Hence the influence which Frenchmen attribute to the school, — for it is the school which alone can open the most desired careers. The school it is which controls the social classifying.

Moreover, the school will be constituted in those conditions which will be most favorable to the preparation for examinations. It could not be otherwise, for families estimate the value of educational establishments in proportion to the number of pupils passed yearly at the different competitions. A school unsuccessful in this kind of sport would soon have no pupils at all.

Now, the surest way of preparing successfully for examinations is *le chaufage* (cramming). This process is made so imperiously necessary that the *université* and free schools vie with each other in prac-

tising it. It consists in imparting in as little time as possible a superficial but temporarily sufficient knowledge of the program of an examination.

This knowledge must be imparted in as little time as possible, for two reasons. First, people are hurried by the age limit fixed for entrance into most careers. This limit is imposed in order to restrict the increasing number of candidates, and, second, if it were not for the age limit, still candidates find an advantage in passing their examinations early, so as to have ample time for promotion.

If this system of teaching had for its aims the inculcation of real and thorough knowledge, and the training of the superior faculties of the mind, its results might be more durable; but, as it consists principally of mnemotechnic efforts, its effects are wholly on the surface, and do not affect the intelligence. They fade away, as all hasty impressions do. No one objects on this account, as the one goal of this forcing is success at the examination.

This is why the examinations gave birth to cramming. They have also developed a special school *régime*; the *grand internat* (huge boarding schools).

It must be acknowledged that this educational system is quite appropriate to the aim in view, which is to form civil and military officials. The perfect official must abdicate his will; he must be trained to obey; he is to execute the orders of his superiors, without discussing them. He is essentially an instrument in the hands of some other man.

Note how the *grand internat* is fitted to give this training. It seems to have been organized on the model of a barracks. Pupils rise in the morning at the sound of the drum or bell; they march in ranks from one occupation to the other; the very walks for exercise are like the filing past of a regiment. Playtime takes place mostly in an interior yard, surrounded by high buildings. The boys walk about in groups more often than they play.

Obviously, such bringing up suppresses in young men the habit of free and spontaneous action and originality. Passive obedience will be more easily obtained, because the examination system has not developed the habit of reflexion and the faculty of judgment. An enormous mass of matter has been swallowed hastily and anyhow. As the young man accepted implicitly the ready-made tuition imposed by the programs, so will he accept the orders transmitted to him by the bureaucratic hierarchy.

Such is the treatment that most French people submit to, in the

hope of being successful in the examinations that open the careers of the State. If all entertain such a hope, but few, however, are called, and those that fail must seek situations elsewhere.

Another question arises here, — whether this system, so eminently fitted for forming officials, is equally good for making men capable of creating for themselves independent positions, and of taking care of themselves.

To create for himself an independent position, a man first of all requires initiation, then strength of will and the habit of relying on self. The system just described not only does not develop these aptitudes, but restrains and smothers them. Moreover, it has the effect of accustoming the minds to expect ready-made situations, in which advancement is the reward of patience rather than of constant effort. Indeed, both in the army and in the different departments promotion comes mostly from seniority and protection. The difficulty is to get there; but when once you are in the place, you have to follow the regular and automatic motion which carries you from grade to grade. Evidently such prospects are not calculated to produce heroic souls and conquering hearts.

To create for himself an independent position, a man must begin young. Unless he does so, he cannot confront without flinching, and surmount, the difficulties that bristle at the entrance of all enterprises. Besides, youth is the best age for learning a trade or profession. But the aspiring official is kept in suspense at least until he is twenty years of age, very often twenty-five, sometimes thirty and beyond. When he has finally lost all hope of success, a great many careers are closed to him; he is too late for any, because beginnings are long, arduous and ill-paid.

Youth is not everything, however; our young men must show ability, inclination, technical knowledge. No one is made a farmer, a manufacturer, a merchant or a tradesman in a day. All these careers require an apprenticeship.

Our school training does not prepare for any of these vocations. On the contrary, it inspires the young people with disgust; it teaches them the superiority of public functions. This influence on the part of the school is becoming so general that we have come to deplore nowadays the estrangement of young Frenchmen from the more usual occupations, which, however, are the most useful and honorable. In consequence, those young men who, having failed in their examinations, are obliged to betake themselves to such callings, do so only on compulsion, half-heartedly, without natural dispositions, or sufficient special education, in short, in the very worst conditions for attaining success.

However, besides official functions, our educational *régime* particularly predisposes young men to all kinds of office or administrative

work, as well as the liberal professions. This preference is easily accounted for by its analogy with the work of public officers. The same aptitudes are required, and there is little demand for initiative, exercise of will power, or constant effort; on the other hand, equal security is offered, advancement is slow and sure. So young Frenchmen who have failed in their examinations turn to these *administrations*, as the French word is. We all know that they are besieged by a crowd of candidates, to all of whom it is impossible to give berths.

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But, if our school *régime* thus multiplies to excess the number of men given to the liberal professions, it is a fact that these men owe it to a peculiar intellectual conformation. Its characteristic feature is a difficulty to study any question thoroughly. The Frenchman is at his best in works of the imagination, and in rapid and therefore venturesome generalizations. Most instructive on this point is a perusal of the “*Journal de la Librairie*,” which publishes a weekly account of literary production in France. Voluminous books are becoming scarcer and scarcer, and when you do come across one, it is generally some huge compilation of a more or less encyclopedic character, — not any personal work that required long and extended reflection, but rather some vast compendium meant to present an *ensemble* of facts in the most easily digestible form. With very few exceptions there are now in France, for long personal literary efforts, neither authors nor readers.

This inability to go to the bottom of any subject is not a “racial phenomenon,” as we can be convinced by comparing the literary production of the last two centuries and the beginning of this with the production of the last forty years. It is mostly due to the cramming occasioned by the examinations. When the mind has been trained solely to skimming the surface of things, to learning exclusively from manuals, to comprehending things speedily, to swallowing the greatest possible quantity of indigestible information, then all methodical and thorough work becomes impossible.

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This phenomenon reaches its climax amongst pupils of our largest schools. They are superior in memorizing, in rapidity of conception, in aptitude to seize a demonstration on the wing, as it were. These are the only qualities that there has been any attempt to develop in them, and to them they owe their successes in the examinations.

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Our present educational system, therefore, forms chiefly good officials; it is hardly capable of producing anything else; it is especially unfitted to train men.

E.

HOW FAR THE PUBLIC HIGH SCHOOL IS A JUST
CHARGE UPON THE PUBLIC TREASURY.

By FRANK A. HILL,

Secretary of the Massachusetts State Board of Education.

AN ADDRESS GIVEN BEFORE THE NEW ENGLAND ASSOCIATION OF
COLLEGES AND PREPARATORY SCHOOLS AT
SPRINGFIELD, OCT. 15, 1898.

HOW FAR THE PUBLIC HIGH SCHOOL IS A JUST CHARGE UPON THE PUBLIC TREASURY.

An address by Frank A. Hill, secretary of the Massachusetts State Board of Education, before the New England Association of Colleges and Preparatory Schools at Springfield, Oct. 15, 1898.

I have been asked to answer the question, "How far is the public high school a just charge upon the public treasury?" I shall have to limit my answer to Massachusetts, although, in the nature of the case, whatever answer may satisfy Massachusetts is likely to serve, in some measure, other States as well.

Although the towns do not return their high school expenditures in a separate statement, a fairly trustworthy approximation to the aggregate of such expenditures is attainable in several ways. If we bring together the expenditures for all school purposes, including new buildings and old, as reported in the latest school returns, then out of an average total tax for the State of \$15.23 on a thousand dollars, we shall find that the amount expended for schools was Cost of the high school. \$4.72, of which amount 91 cents was for high schools; or, if we exclude expenditures on buildings, which are subject to wide fluctuations in their annual aggregates as well as to great unevenness of division between high school and lower school purposes, and deal only with current expenses, we shall find that the amount expended for schools was \$2.95 on a thousand, of which 58 cents was for high schools. In other words, a little less than one fifth of the money raised for public schools in Massachusetts is expended upon the high schools. If the thirteen grades of pupils in our public schools had the same number of pupils in each, and if the school money were equally divided among all the grades, the four high school grades would be entitled to four thirteenths of this money, or a little less than one third. As a matter of fact they receive, as has just been said, a little less than one fifth of it. This is because the number of pupils falls off from the lower grades to the higher, so that, notwithstanding the greater cost of education

in the high school, the four high school grades require much less money than any four grades below.

Now how far is this high school tax a just charge upon the public treasury? The form of the question seems to suggest that it is just for the public to contribute something towards the support of the high school, but that it is an open question precisely how large that contribution shall be. The **Spirit of the question.** spirit of the question, however, seems to require a consideration of the reasons why the high school should be treated as an essential part of the public school system and dealt with accordingly. Though these reasons are old, it is well to review them from time to time to see whether they are sound or not.

I will not discuss the justice of making education in general a charge upon the public treasury. For two centuries and a half Massachusetts has clung most tenaciously to **Education in general a just public charge.** two fundamental thoughts about this matter. One is that every child—the humblest as well as the proudest—is entitled to a fair education. Nay, he is not simply entitled to it, but the State must see that he has it. And the other is that the cost of this education is a legitimate public charge. Under stress of poverty or war Massachusetts has wavered at times in application of these principles, but never in loyalty to their essence. They are deeply entrenched in the universal conviction; they have found splendid expression in the supreme law; they are woven as unbroken strands into the substance of her history. Indeed, it is idle to make a show of defending a citadel that is a Gibraltar in itself and that no enemy of consequence now attacks.

When we leave education in general and think of secondary education in particular, we shall have to say that, so far as legal or technical justice is concerned, the high school tax as well as the general school tax is a just charge upon **The high school in legislation.** the public treasury. That is to say, there has never been a time since 1647 when the laws of Massachusetts did not require certain towns to maintain at public expense grammar schools, *i. e.*, college preparatory schools, or their modern equivalents or successors popularly known as high schools. It has not been simply the legal right of these towns to tax themselves for the support of secondary schools,

but it has been their legal duty to do so; and towns were not rarely “presented,” as the old records run, and fined for failure to discharge this duty.

And when Massachusetts became a State the people took pains to clinch this policy of colonial and provincial times by putting into the Constitution these words: “It shall be the duty of legislatures and magistrates, in all future periods of this Commonwealth, to cherish the interests of literature and the sciences, and all seminaries of them; especially the university at Cambridge, public schools and grammar schools in the towns.” In other words, the ancient and historic grammar schools that taught Latin, Greek and mathematics, with such minor variations in the curriculum as the people saw fit to make, and that were supported at public expense, were specifically mentioned by the people in that “solemn and mutual agreement” as schools which legislatures are constitutionally bound to cherish. In response to this duty, imposed upon them by the supreme law, our Legislatures have again and again made requirements relating to grammar or high schools, while the towns, within the realm of local control, have, in numerous instances, gone far beyond the letter of such State requirements.

And when now and then conservative, skeptical or intractable persons have questioned the liberal action of the towns toward high schools, and have applied to the courts to restrain them in such action, the highest judicial authority has invariably stood for the larger, the more generous interpretation of the high school policy of the State. So that the justice of the high school tax, if we consider simply such questions of legality as are settled by the Constitution, the laws and the decisions of the courts, rests on the solidest of rock.

To be sure, we now and then hear it said that the merest elements of an education will do for the toiling millions. Why should humble John Doe go to the high school? It is enough that he can read and write. What more does he need for plying the hoe or pushing the plane? To fill his horizon with tantalizing mirage effects, to fire his plebeian soul with vain longings, to sow discontent in his simple life, to train him to impatience under his

The high school and the Constitution.

The high school in court decisions.

An undemocratic view.

natural leaders, — in short, to school him above his station, — this is bad both for John and for the community he should serve. Training the masses beyond their station! It is high time that under a popular government like ours the use of this word “masses” in any sense that excludes the user from the masses of which he speaks or that prompts him to say “they” and not “we” should cease. Who are these superior beings that presume to sit thus in judgment upon their fellows, to assign them to classes, according to their high pleasure, to set for them metes and bounds beyond which they shall not go? By what right, under our form of government, does any human being dare to say that I must grovel while you may aspire, that the primary school must suffice for my children while the university is for yours, that I must serve while you must rule? A believer in an aristocracy, a monarchy, the divine right of kings may, perhaps, consistently venture to dispose of you and me, of yours and mine, in this summary way, but not a believer in a democracy, a republic, the divine right of the people. Indeed, article six in the Massachusetts declaration of rights records the deliberate and carefully expressed conviction of the people that “the idea of a man born a magistrate, lawgiver or judge is absurd and unnatural.”

And so freedom of choice, when the question of what one's life work shall be comes up, is a basic thing in government by the people. Upon the wisdom of this choice turns the welfare of each unit in the State and therefore of the State itself. So vital is the connection between the individual's choice and the State's integrity, so essential to wisdom of choice is one's awakening to his own capacity and one's vision of the prizes that are possible to such awakening, that no State can afford to suffer its children or any portion of them to grow up without this revelation of themselves to themselves and without this stimulus from the splendid visions of a larger usefulness and a finer happiness.

It is, indeed, true that in spite of the State's effort, through its public schools, to promote freedom and wisdom of choice, some people continue to make egregious blunders in their life plans. John Doe, for instance, aspires to teach when he had better break stones. “All wrong,” we say, as we think of John's suffering pupils. But when we

Freedom of
choice a
basic thing.

Mistakes
in choice.

take a larger view, we begin to discriminate. If John Doe has blundered, we have sinned. John Doe did the best he could with his freedom in choosing a business. We have not done the best we could with our freedom in choosing a teacher. It is essential that John Doe shall exercise freedom of choice. It is not essential that the public shall endorse that choice. If it is important that John Doe shall modify or change his choice, it is essential that the public shall not be too indulgent or gullible in the presence of his faith in the wisdom of that choice. So let John Doe choose as he pleases; let him choose amiss, if his judgment is at fault and his friends cannot dissuade him, and let his blunders bring him to grief that he may blunder the less thereafter. All the same, the chance John has is stimulating, developing. He is probably better off for trying to do something with it in spite of his misjudged use of it. I am not sure but that his failure in the larger endeavor leaves him more of a man than success in the smaller endeavor; I limit this hazardous thought, of course, to the realm of honest endeavor. "A sadder and wiser man," we sometimes say of John Doe when his misfit career is suddenly checked. If his wisdom lifts him out of his sadness and sets him in his true orbit, his experience certainly leaves him more of a man than before. At any rate, it leaves him as a lesson, a caution, a monument, for the guidance of other struggling souls, — a kind of left-handed service to which the renderer cannot, indeed, point with pride, but by which the struggling souls referred to may fairly profit.

And so the total result of the process when people in general try to make something of the opportunities which are theirs under a wise government of their own is an uplift of the State through the enlargement and stimulus of its members, and an uplift of its members through the enlargement and stimulus of the State. It is the essence of democracy — this freedom of intelligent initiative and push by the individual along the lines of his taste or capacity, a freedom that permits him to rise from the lower plane to the higher, if he can and will. So good a thing is such freedom for the individual and, therefore, for the State, that the public should spare no pains to keep the avenues of ascent open. If free public education of a high order keeps

Total result
of the policy
of freedom
of choice.

these avenues open, — and with all its imperfections it seems the wisest scheme for this purpose that human ingenuity has yet succeeded in devising, — that settles the wisdom of having it.

Now it is precisely here, in loyalty to this ideal of free, open, attractive avenues by which the humblest child, if capable, may ascend to better things, that Massachusetts stands to-day; and I need rather to apologize for taking your time to hint at the reasons why she has taken this stand than to show any solicitude as to the validity of those reasons.

If, however, the justice of the high school tax in its constitutional, legal and judicial aspects is beyond question, it is still legitimate to inquire whether the public is receiving what it ought from its high school expenditure, or whether **A legitimate inquiry.** the high school is receiving what it ought from public taxation. Even if it should appear that high school results are too meagre for the money that is paid for them or that the money paid for them is too meagre to make the results reputable, it would simply follow, in the one case, that the money available for the high school ought to be expended to better purpose, and, in the other, that there ought to be more money available for the high school. In neither case would it be proper to call the high school tax unjust any more than it would be proper to call a highway or any other customary municipal tax unjust because it is too small or too large or because it is carelessly or corruptly used. We may affirm lack of judgment in such cases, which is an unintended injustice to the taxpayer, or even lack of honesty, which is an intended injustice to him, but such injustice is an avoidable incident in raising or expending the money, not a defect inherent in the nature and purpose of the tax itself.

The relation of any tax to the people's ability to pay it, under our form of government, is dependent on the people's willingness to pay it; and this willingness, in its turn, is dependent on the people's intelligent appreciation of the benefits the tax is supposed to bring. The tax **Relation of a tax to ability to pay it.** should not be so heavy as to check production, to devour income, to extinguish ambition, in short, to kill the goose that lays the golden egg; but what its basis shall be, just what percentage of this basis shall constitute the tax, how

the tax shall be distributed among the various purposes it should serve, how each portion of it shall be expended,—these, with scores of allied matters, are always likely to be open questions. In their nature they do not admit of exact, complete and final answers. It is not what people casually say that must be taken as their true answers to these questions but what they directly or through their representatives actually vote for. When the Legislature in 1824 voted to exempt nearly every town in the State from maintaining a high school, this meant that, in the popular judgment of that time, the high school was an institution of so great expense and so limited service that only the largest and wealthiest towns ought to be required to maintain it. When the Legislature in 1891 ordered that every town should be required to provide its properly qualified children with free high school tuition, this meant that, in the popular judgment of that time, high school education was of so great and general value that, notwithstanding its expense, no child ought to be denied free access to it.

In short, our people are doing far more for education to-day than in 1824, and yet they are doing it more easily. The voice of the grumbler, I suppose, will never cease, but it is less often heard to-day than then. Here and there, indeed, we see a town that is pitifully burdened, paying double or quadruple the school tax of its wealthier neighbors and yet powerless to command the schooling it ought to have. Such unevenness, whether of burdens or of results, is regrettable; the State does something to reduce it and should do more. Still the inequalities are not what they once were under the vicious district school system. It may be safely said that, whatever defects of taxation need to be remedied, the people as a whole are not excessively taxed,—certainly not to the verge of rebellion, as in Cuba or Italy, or of confiscation, as in parts of Turkey; for when the people tax themselves, they are not likely to do it with suicidal intent, even if once in a while they do it with suicidal result. From the European point of view we all live in a kind of taxpayer's paradise, although, from our own point of view, we are inclined to restrict his paradise to such cases as Milton, Nahant and Manchester-by-the-Sea.

School tax
not excessive.

Leaving these general thoughts, let me say that we may find ample moral justification of the high school tax not only in what the high school, at its best, is theoretically fitted to do for the youth of the State, but also in what the high school, with all its faults, is actually doing for them. Possibly, if I limit myself to the blessings the ideal high school is likely to confer upon the public, I shall be open to the charge of trying to justify a public tax by what might be, if things were different, than by what is, things being as they are. It is better, therefore, to take our high school facts just as they are, the bright, the dark and the neutral, and to inquire if they justify the present tax. If they do, then they may be worth improving, even if it takes a little more money to do it. What are some of these facts?

One well-recognized and valuable fact is this, that the high school exerts a powerful stimulus for good upon the schools below. It holds up before the young ideals of higher and broader scholarship; it is the gateway to otherwise inaccessible realms beyond; it appeals to the ambition of the young; it appeals to this ambition at a critical time, when it is important that inferior ambitions shall be forestalled; it is a golden strand in that interest which holds the young up to scholarly endeavor. It fits in with the thought that noble inspiration comes from above, not from below, that normal children respond better, not when they are pushed from beneath, but when they are drawn from on high. The longing for higher things thus aroused, children do better work in the lower schools; they are more readily guided; they hold to a definite course more steadily. Indeed, it is as true of the mind as of any ship that sails the seas that it must have momentum to obey its helm. If this ambition to attend the high school is, in some measure, imitative, — a mere spirit to do as others do, — it is, in a larger measure, a spirit to study for study's sake or for the rewards that study brings. It is not suprising, therefore, that school committees, with scarcely an exception, should bear witness to the bracing influence of a good high school upon the grades below, experience thus confirming what theory would lead one to expect.

Again, high school work is becoming more and more a natural and desirable, if not a necessary, continuation of the work below. The exclusion of rich subjects from the lower grades because they are assigned to the high school leads people to think of such themes as belonging to a less useful, a more luxurious education. When they are not tasted below there is little longing for them above. And so there comes to be, at the gateway of the high school, a seductive and plausible halting place in the schooling of many a child. Now such a break is neither a logical nor a desirable one. Even when the attempt is made to promote unity, and so reduce the break in question, by putting nature study into the lower grades to go with the sciences of the upper, some are inclined to restrict the work below to the observation of isolated facts while extending the work above to the classification of such facts; in short, to view the work below as wholly preliminary to scientific study and apart from it, while regarding the work above as being for the first time truly scientific. “Here is the high school,” they seem to reason, “with its special name, its special home, its special courses of study, its special corps of teachers and its special scale of expenditure. What justification is there for all this in an educational philosophy?” So, for one answer to the query, science is cut in two, as it were, its unorganized material summarily assigned to the lower grades and its organized to the higher. As if a well-taught normal child could observe detached, unorganized facts in the lower grades without a suspicion of those natural groupings and underlying principles that go to make up the science of such facts; or deal in the high school with the science of such facts without keeping on with observational study of the separate facts themselves. Some acquaintance with single objects must, indeed, precede recognition of what is common to them, but not in a sense to justify putting the processes that are involved years asunder in a scheme of instruction. It may answer, in studying the mind, to isolate its modes of working so as to gain a clearer view of each. It does not follow that there should be a corresponding isolation of these modes in our teaching.

High school
work a con-
tinuation
of work
below.

The truer conception is that the mind is a unit. Its work-

ings have the humblest and crudest beginnings. Its development is continuous, — a development in rank as it were, as well as in file, the mind broadening out as well as forging ahead. And educative processes should have a corresponding unity. They should reach the mind on all its sides, — stirring its soul, quickening its thought, energizing its will. They should do this by getting at the springs of the child's activity. They should do this in the lowest schools as well as in the highest. With this view there is no natural stopping place in a scheme of study. Conditions outside of the scheme may end one's schooling anywhere, but the course itself is logically continuous, progressive, unbroken to the end. The high school is less and less regarded as a separate and optional, if not superfluous, institution. It is fitting with increasing closeness into the general system. The not infrequent transfer of ninth grade pupils to the high school building and to high school care improves this articulation. Pupils are assuming more and more that they are to keep on, as a matter of course, when they reach the high school. All this increases the usefulness of the high school and strengthens its hold on the public.

In the third place, our larger high schools are offering a wider range of choice to divergent tastes and capacities. Either there are parallel courses, any one of which the pupils may elect, or there is some carefully determined minimum which every pupil must take, with a variety of supplementary subjects from which he may choose. Such options are perfectly feasible for the large schools though burdensome to the small. They chime in with the more sensible views of education now held. There is the old knowledge theory that holds, by implication, the ideal of a curriculum of study complete and perfect in itself. There it is; teach that, — the mind will take care of itself if it is kept busy with a well-thought-out scheme of subjects to be studied. Then there is the old discipline theory that holds, by implication, the ideal of a typical mind, with its so-called faculties in such and such conditions to begin with while such and such conditions are desirable to end with. Work away at these faculties, — it makes little difference in

Unity in
educative
processes.

A wider
range of
choice.

The
knowledge
theory.

The
discipline
theory.

the long run what one studies, provided one's faculties are exploited.

Now neither of these ways is fatally defective. The mind will grow if you give it but little direct thought but keep it intent on some subject to be mastered. It will grow if you give it all thought, regardless of the theme that is studied except so far as the theme engages this or that so-called faculty whose training is sought. The pressing need is that both the knowledge theory and the discipline theory shall be brought into one, so that the knowledge sought shall meet the demands of the mind and the mind to be trained shall be nourished by the knowledge it gains. Now the natural unifying principle is not to be found in some dead body of things to be learned nor in some aggregate of mental powers to be coldly treated apart from the living being. It is to be found rather in the individual. This brings us to the development or ^{The genetic} genetic theory, under which the teacher starts with ^{theory.}

what the pupil actually is, not with what he theoretically ought to be, and then proceeds as the way opens. One should know things, indeed, and be subjected to wholesome discipline, but the knowledge and the discipline should hold some relation to one's fitness to receive them and so must be duly subordinated. In other words, the development idea involves a reaction from the extremes of class treatment; it carries with it increased respect for individual differences. And so the closer the high school gets to individual needs, the stronger the hold it gains upon the public esteem.

In no way can the individual be given a freer play, a finer field for self-exploitation, than through his motor activities. His sensations, emotions, ideas are embodiments of force; they have a dynamic character; they tend to discharge themselves in action. The energy thus set ^{Motor} free may be broken up into a thousand aimless rills and so be wasted, or it may be gathered up, directed and made to do valuable work. The child's spontaneous activity springs from interest. If skilfully directed and utilized this activity augments the interest from which it springs. Imitative at first, it at length becomes inventive and even, in a sense, creative. It reacts helpfully upon the ideas that inspire it; it gives them definiteness, clearness, abiding character; it promotes execu-

tive power. Without it the schooled are bookish and inert; with it the unschooled become the self-made men of the world. So fruitful a principle as this cannot be ignored if the whole child is to be properly schooled. The people are getting hold of it, and so, through their representatives, have ordered that all cities whose population exceeds twenty thousand each shall maintain manual training courses in connection with their high schools. The majority of these cities have conformed to the law — at least, so far as boys are concerned — and the rest are expected to follow. Thus a new and valuable means of training is coming within reach of the boys and, let us hope, of the girls as well, for a million and a half of the people. There can be no doubt that the more fully and judiciously the high school respects those methods and processes that engage the mind through the motor activities, the more closely it works to individual capacities and needs and the more completely it endears itself to those who have to foot the bills.

High
manual
training.

In the fourth place, the high school to-day is a much better avenue to things beyond than it has ever been in the past; moreover, this avenue will in time be broad enough to comprehend all the four years' courses of the high school. When this time comes, a very serious handicap of the high school will have been done away with. For two hundred and fifty years the people have tried to fit youth for college in ways to please the college; it has been only for a generation or two that they have tried with equal seriousness to build up parallel general courses in the high school to please themselves. In the former task they have had the help of the colleges; in the latter, they have generally been denied that help. By a process of natural selection, college aspirants have averaged somewhat higher than their fellows in blood, ambition and scholarship. And so the college preparatory course has enjoyed a prestige which the general course has found it hard to gain. The one has been a royal avenue, — narrow, indeed, but leading straight to the college; the other a common road, — broad enough, but leading nowhere. The teacher's reputation has been more at stake in the former than in the latter; in the one case he has worked with a lively sense of

An improv-
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The general
courses
handi-
capped.

a judgment to come; in the other, with the comfortable feeling that there were generous margins as to the quantity and the quality of what he did and no accounting therefor to powers above. And so it is not strange that instruction in college preparatory work has been, on the whole, more sound, more searching, more successful, than that in general work. Nor is it strange, again, that when the teaching corps has not been large enough to do both kinds of work efficiently, the dregs of interest and energy have often fallen to the latter. All this, of course, has been a handicap to the general course, calculated, in itself, to separate it from the college by a formidable break. If now we add the fact that many subjects indispensable to the general course, like the sciences, for example, do not generally appear in the college admission requirements, — at least for the degree of A.B., — the break is widened.

It is a great and needless burden that the small country high school, with but one or two teachers, cannot concentrate its energies upon some single course that shall contain those subjects which the vast majority of children must have and will not do without, — a course that shall answer alike for the college and the non-college pupils.

Relief of
the small
high school.

Whatever the large high school may be able to do with parallel courses, the small high school cannot hope to manage them efficiently. It is a singular fact that, the college threshold once passed, the high school subjects ignored in college admission examinations begin to appear as college requirements or electives, — an exceedingly late day for beginning with their elements. Indeed, the whole modern drift is towards beginning the attack on such elements in grades below the high school.

Now any condition of affairs that interposes a serious barrier between the vast majority of high school pupils and the colleges, that is to say, between the people and the colleges, is bad both for the people and for the colleges.

It is worth much to the people that they can send their children up to the very doors of the college whatever reputable high school course they may take and whether they enter college or not; it is also worth much to the colleges to rest squarely, all along the upper high school line, upon the system of public school education and,

Complete
articulation
with higher
institutions.

therefore, still more securely upon the respect and affection of the people. It is not simply a question of self-interest with the colleges; it is a question of their implied duty to make themselves felt for good throughout all the studies of the public school system. They are insensible to their high trust to the extent to which they neglect that duty. Nor should they wait until the high schools have risen, without their influence, to a certain standard of efficiency in their general courses, but they should connect at once with them, throwing over to them temporary or provisional bridges until better ones can be built.

Now as a matter of fact the powerful influence of the colleges is moving in just this direction. If they are sufficiently generous in their recognition of the hitherto tabooed subjects, if they are not too exacting in their first demands for attainments in them, the promise is bright for a fair junction with the whole high school system rather than with a section of it, — a union of forces sure to help the high schools, to say nothing of the colleges, and, therefore, likely to gratify the public that pays the high school tax.

Here let me call attention to a new force that is making itself felt throughout the high school system. I refer to the State normal schools. In 1896 candidates for admission to the schools were required to be high school graduates or to have received an equivalent training, and, for the first time, to pass examinations in high school subjects. Until quite recently one could step from the grammar school directly into the normal school, omitting the high school altogether, — a kind of short circuiting that was calculated neither to interest the high school in normal school work nor to inspire it with respect for normal school standards. All this was as bad for the high school as for the normal school. Since 1896, however, the normal schools have compelled the attention of the high schools. High school pupils in larger numbers than ever before have aspired to enter the normal school, and high school masters have bestirred themselves as never before about the fitness of these pupils to do so. The new normal schools in their admissions have surpassed

Rays of
hope for a
fair junction.

A new force
brought to
bear on
the high
school.

Response
to the new
normal
school
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the most sanguine anticipations; the old have grown handsomely in spite of the new. The numbers admitted under the new policy were 389 in 1896, 630 in 1897, 584 in 1898,—numbers, respectively, 7 per cent. less, 52 per cent. more and 40 per cent. more than the average number of admissions for the last eight years of the old policy. Nor has this gain been secured by excessive indulgence; 63 candidates were rejected in 1897 and a larger number in 1898.

The normal school examinations bear directly upon the general courses pursued by the vast majority of pupils; they deal with themes which elementary teachers must know if they are to teach well. They are so shaped as to give options to candidates, and, therefore, to abound in valuable suggestions to the high schools; they call for power rather than for memory; and are so framed, when the colleges require the same subjects, as not to work at cross purposes with the college requirements but in harmony with them. It is, for instance, unsound pedagogically as it is wasteful pecuniarily to teach English one way for the normal schools, a second way for the colleges, and a third way for those going to neither. A course in English suited to any one of these three cases should answer for the other two. To avoid encouraging a needless division of the English instruction in high schools, the normal schools adopt the entrance requirements in English of the colleges.

To show the extent to which higher institutions are interested in the high schools, let me say that in 1896 244 high schools—not quite the full number—sent 374 graduates to the normal schools; in 1897, 576,—a gain of 54 per cent. In 1896 they sent 232 to high scientific schools; in 1897, 274,—a gain of 18 per cent. In 1896 they sent 715 to the colleges; in 1897, 789,—a gain of 10 per cent. The total for 1896 was 1,321; for 1897, 1,589,—a gain of 20 per cent. Fully half of those who pass through the high school to institutions above now take what is called the general course, or the general course slightly modified,—the course of the great majority. All this tends to tone up and dignify the general course.

These figures bring out the striking importance of the high school as a factor in the preparation of the teachers of the

Normal
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Commonwealth. It furnishes a large part of the academic training of the teachers who are destined to go out from the normal schools into the common schools of the State. The better the methods, the scholarship, the spirit of the high school, on the one hand, the better, on the other hand, will its graduates do in the higher institutions as students and in the common schools again when they appear there as teachers. I hardly need to say that the people are seeing with varying degrees of clearness these intricate and far-reaching relations of the high school to teaching efficiency in general, and, therefore, are finding added reasons for maintaining and improving the instruction it gives.

It should be noted, in this connection, that the teachers of the high school have been largely those who have taken the traditional classical course of the high school, and, having graduated from college, have returned to the high school with their very natural classical bias. Undoubtedly, our high school system, while in many ways uplifted by the intensive work and scholarly spirit of such teachers, has been unduly subordinated in the past to ideals which, whatever their excellence, have not been sufficiently pertinent to the demands of modern life. The group of foreign languages, for instance, still costs the public four dollars where English costs one dollar and the group of sciences, one dollar and fifty cents,—a distribution of cost that impressively shows the classical domination of the high school curriculum. It would be very strange if the teaching in the elementary schools had not felt such over influence. Whatever else the elementary teacher may need she needs a scholarly equipment in English, nature themes, history, music and certain manual arts,—an equipment to which the classically trained high school teacher might easily fail to make adequate contribution. It is the general courses of the high school—those planned for the non-college pupils—that best meet the needs of the elementary teacher. Fortunately, these courses are gaining in strength; good teachers for them are less rare than they once were. The notion that inferior teaching will answer for non-college pupils is an exploded one. If it takes a high order of qualifications to teach Latin well, it

High
schools and
the training
of teachers.

The classi-
cal bias in
high school
teachers.

Classical
domination
of the high
school
curriculum.

General
course
best for
elementary
teachers.

takes a higher order to teach English well. Arm-chair subjects make smaller demands on executive capacity than laboratory or out-door subjects. Precise things of small range are more readily taught than vague things of indefinite range, — algebraic equations, for example, than principles of art or of morals. English literature always loomed up before me as a vast, imperious and taxing theme to teach; when I wanted relief, I betook myself to college mathematics. In short, the general courses, on the whole, demand higher teaching power — at any rate, they present more perplexing problems — than the traditional college preparatory course. Of the 40,000 pupils in our high schools, 35,000 take the general courses, — a great, stubborn fact that the high schools cannot get away from; a fact that must be met — is gradually being met — by better teaching, — teaching that cannot but exert a wholesome influence in time on all the other teaching in our common schools. We cannot go far in contemplating the academic training of teachers, and, therefore, the sort of instruction they are likely to give the youth of the State, without seeing that the colleges, the high schools, the elementary schools, the teachers and the public are so intricately bound together in common interests that none of them can afford to ignore the rest.

High demands of the general courses on teachers.

The popularity of the general courses.

Not only are there ample reasons, in theory, why the public should value and support the high school, but there are ample evidences in fact that these reasons are mighty with the public. Consider for a moment the rise of the high school and its present remarkable hold on the loyalty of the people. Our educational history shows in the spirit of the people the golden era, the dark ages and the renaissance, — the golden age in the beginning, the renaissance in our own time and the dark ages between. There was the action of the Colony of Massachusetts Bay in 1647, ordering that towns of 100 families should each maintain a grammar school, that is, a college fitting school. It was Latin grammar and Greek, not English, that it taught. English grammar, as we understand it, was hardly known. It is a significant fact that the golden age of English literature was a grammarless age; the art

The rise of the high school.

The old grammar school.

flourished, the science slept. In 1677, Plymouth Colony said that towns of 50 families may, and towns of 70 families must, keep a grammar school. The next important legislation was in 1789. People had been living through a hard century. It was becoming more and more trying for the towns to comply with the law. Many of them had ceased to do so. Accordingly the General Court relaxed the grammar school law of 1647. It ordered that thereafter towns not of 100 families but of 200 should maintain a grammar school. Under the old law 230 towns were required to maintain such a school; under the new more than 100 towns were released from this requirement.

Retrogression in legislation.

But the General Court of 1789 unwittingly gave another damaging blow to the grammar schools. It unfortunately established the school district system. Under this system the school district, not the town, became the educational unit. Not unfrequently a town was broken up into twenty or thirty such districts. As a result district spirit rose; town spirit, already feeble, fell to greater depths, and with this fall went a further decline in the grammar school, which was a town and not a district institution. In other words, the several districts absorbed the educational energy of the people, what there was of it, and the town, as a town, was left educationally dry and barren. In such a desert no grammar school could thrive. It was this decline in town spirit, this dying out of the grammar school, that led to the springing up of academies and private schools on every hand. Towns might grow cold about high grade schooling, but there were spirited families enough to insist, whatever the sacrifice, on such schooling for their children.

Bad effect of the school district system.

The year 1824 saw low water mark in our educational history. There were 172 towns that should have been supporting grammar schools under the law of 1789. Very few of them, however, were doing so. Accordingly, the Legislature exempted all towns under 5,000 inhabitants from maintaining them. That is to say, it exempted 165 of those 172 towns, — all of them but 7. It was no longer only 100 families in the town, as in 1647, no longer 200 families, as in 1789, but practically 1,000 families, that created the obligation to maintain a grammar school. Thus the grammar

Low water mark.

school was nearly extinguished and its very name began to fade in oblivion. The altar fires of high ideals, however, were kept alive in the academies. It was the very success of these academies that, in a way, checked their growth and led, with some notable exceptions, to their reduced importance or their demise. It was largely because of them that the demand for free secondary instruction revived. It became a burning question everywhere, "Why should not the children of all the people enjoy advantages equal to those of the favored few?"

The service
of the
academies.

The reaction from the legislation of 1824 came quick and sharp. In 1826 the Legislature ordered that towns of 4,000 people should maintain a high school of the first grade; towns of 500 families, a high school of the second grade. Here was a partial return to the policy of the fathers, the beginning of educational repentance.

The re-
action of
1826.

The chief original difference between the two grades was that the first taught Latin and Greek while the second did not; the first connected with the colleges in the traditional way, the second ignored the colleges and was ignored by them. And now for some years the policy of the State was singularly vacillating. There was a locking of horns between the progressive party and the conservative. The law of 1826 had been in force but a short time when the requirement of a second grade high school in the case of towns with 500 families was repealed; in 1836 it was restored; in 1840 it was practically repealed again; and in 1848 it was restored again, this time to stay until another advance became possible. So we see that it took just twenty-two years to clinch the legislation of 1826.

Years of
vacillation.

For many years after 1826 the high school outlook was far from encouraging. The law was explicit enough, but towns consulted their pleasure about obeying it. In 1838, for instance, out of 43 towns required to maintain high schools only 14 were doing so. But the upward movement, long delayed, began at last. The missionaries of the movement were Horace Mann and his fellow-workers. In 1852 there were 64 high schools; in 1866, 156; in 1876, 216; in 1886, 229; to-day there are 261.

The
upward
movement.

In 1891 the State took a step which placed it, for the first

time, in advance of the policy of the founders. It ordered that free high school tuition thereafter should be the legal right of every properly qualified child in the Commonwealth. Every town, without exception, must furnish it either in its own high school or in that of a neighbor. Other States have gone beyond Massachusetts in making the college or university a part of the public school system, but Massachusetts was the first State in the Union, if not the first in the world, to make it compulsory on all its towns to provide free high school instruction. Such compulsion bore with hardship, of course, on many small and feeble towns. Hence the policy in such cases of State reimbursement of high school tuition payments.

In 1898 the Legislature abolished the distinction between first grade high schools and second, the people having previously abolished it in most of the towns. The aims of the high school were for the first time specifically stated, — to give such instruction as may be required for general purposes of training and culture as well as to prepare pupils for admission to the State normal schools, to high technical schools and to the colleges. The length of the high school curriculum was for the first time fixed; there must be at least one course four years long. And to ease somewhat the burden of this newly defined high school upon the small towns, it was made permissible for them to arrange that a portion of the high school instruction may be given in the high school of another town. A town, for instance, may maintain a high school for a part of the course if it will pay for the rest of the course elsewhere. This progressive legislation is, in itself, an expression of the people's conviction of the value of the high school. It has placed the high school in the best legal position it has ever held. The law can do but little more. It remains now to round out

the high school to the full measure of its great opportunity, to see to it that its inner life responds in spirit and efficiency to the statutory ideal. Now this is precisely what the educational forces of the State are trying to do. The gratifying fruits of their activity abound on every side. So far as these fruits are intellectual and spiritual, it is not easy to measure them. In their outward,

Free high
school
tuition
universal.

Legislative
advance in
1898.

What
remains to
be done.

material and visible aspects, however, they lend themselves happily enough to adequate presentation. A monograph of these outward aspects has been prepared to accompany this paper.

There is the numerical growth of the high school, for example. In round numbers, some 40,000 boys and girls attended the high schools of the State last year. This is double the number fifteen years ago. The gain is an astonishing one, as we shall see if we note that during these years the population of the State has increased but 40 per cent., while the number of pupils in the high school has increased 100 per cent. It would be strange if it should not appear that a part, at least, of this surprising growth was due to the growing efficiency of the high school. It would be equally strange if the surprising increase in the number of citizens immediately interested to have their children well taught did not have something to do with spurring the high school to still greater efficiency.

High school
growth
since 1883.

The 40,000 children in the high school constitute between 8 and 9 per cent. of the total enrolment of children in the public schools. The significance of an 8 per cent. enrolment in the high schools is totally and persistently misapprehended by large numbers. “Only 8 per cent. of the children in the high school,” they say. “Then 92 per cent. never attend the high school.” Instantly the conclusion comes from this blundering premise that the high school is for the few, the lower schools for the many; and, therefore, it becomes the public to expend less money than it now does upon so inconsequential a part of the public school system. Ought it not to be seen, with a moment’s reflection, that in an ideal community, where every child, without exception, rises through all the grades and finally graduates from the high school, only a small percentage of the children can be enrolled in the high school at any one time? In this ideal community, if its population is assumed to be constant, the high school enrolment can by no possibility exceed from 31 to 33 per cent., and yet every child enjoys, when his turn comes, high school privileges, or, in other words, the percentage of enjoyment is 100. Under existing Massachusetts conditions the percentage of enjoyment

A popular
error.

Enrolment
and enjoy-
ment.

is approximately three times that of enrolment, — rather more, if anything, than less. In brief, 25 per cent. of the children of Massachusetts enjoy more or less of the privileges of the high school, and there are many towns where the percentage rises to 40, 50 or even 60. Now when the high school attendance is seen in its real magnitude and true light, it is found to represent a much larger number of people and homes than many have suspected, — a fact that has much to do with the hold of the high school upon the people and the demands of the people on the high school.

In no way can we explain the great interest of the people in large, well-appointed and beautiful buildings for their high schools unless we attribute it partly to the growing worth and promise of the high school and partly to the very large number of people who have gone through the high school themselves, or have sent their children there, or have children now in attendance there, or are going to have some there, or who prize the high school on general principles. Such buildings are going up all over the State, with approved systems of heating, ventilation and sanitation, with libraries, laboratories, drawing rooms, gymnasiums, offices and halls, the interior frequently decorated by the voluntary offerings of friends, the exterior as pleasing as architectural skill can make it, and the grounds not rarely spacious and laid out in excellent taste. Private munificence has supplemented civic interest all over the State in furnishing our towns with commodious and well-furnished libraries. Private munificence is now supplementing civic interest with increasing gifts of lands or of buildings or of equipment for the schools, — often better buildings than the taxpayers would be justified, with all their enthusiasm, in erecting. These things are outward expressions only, it is true, but one cannot avoid the feeling that back of these expressions there is a growing worth in the schools that excite it as well as a growing conviction in the public mind that whatever that worth is, there is a greater measure of it that merits striving for.

Massachusetts, unlike many States of the Union, has no State college or university to crown her public school system and to which graduates of her high schools may gain admission without payment of tuition. She

has, indeed, taken a deep interest in collegiate education. One of the first acts of her General Court was to set apart £400 for Harvard College. At sundry times she has aided higher institutions with money grants. In some of them she maintains free scholarships to-day. All this she has done not simply in discharge of a constitutional duty, but because, as of old, it is her heart's desire to foster advanced learning in her midst. Stopping as she does with the high school in her public school system, but encouraging, as she is bound to do and actually does, the higher education of youth in colleges and universities, Massachusetts is under bonds in this quarter not only to make her high school system as efficient as possible, but in particular, to connect it as squarely and fully as possible with what there is beyond. The damming up of the system along six sevenths or any other fraction of the upper high school line she does not view with complacency. In no better way, under present conditions, can the State foster the higher than by fostering the lower. The money burden of the former rests chiefly on private interest and munificence; so much the more, then, should the money burden of the latter rest on the public.

Aid to
higher in-
stitutions.

We dwell much on the sentimental dividends of public education. There are dividends in plain hard cash or its equivalent that appeal to people in quarters where sentiment is at a discount. Dr. Harris, the United States Commissioner of Education, not long ago called attention to a striking coincidence. Each child in Massachusetts, he said, receives on an average seven years of schooling; each child in the nation at large, only four years and three tenths. The ratio is 70 to 43. The average daily wealth-producing power of each man, woman and child, Dr. Harris continued, was, during the year taken for the comparison, 73 cents in Massachusetts, while for the nation at large it was only 40 cents. The ratio is 73 to 40, the excess being 33 cents a day.

Relation of
earning
power to
intelli-
gence.

I am informed by Horace G. Wadlin, Chief of the Massachusetts Labor Bureau of Statistics, to whom I applied for a verification of Dr. Harris's statement, that, according to the latest obtainable figures, the net result of productive industry in the United States, including under that head the net product

of manufactures, agriculture, fisheries, mines and quarries, in the single year covered by the census, amounts to \$114.14 per capita, or, on the basis of 306 working days in the year, to 37 cents per working day for every man, woman and child. A similar computation for Massachusetts, based upon figures obtained in the same census, shows an average per capita production of 66 cents per working day. The ratio, according to these figures, is 66 to 37, the excess being 29 cents a day.

The lengths of schooling for Massachusetts and for the country at large have slightly increased since Dr. Harris's statement, but their ratio has not materially changed. Whether we take Dr. Harris's earlier showing or Mr. Wadlin's later, the larger wealth-producing power accompanies the longer schooling, and the excess of the one follows very closely the excess of the other. Now this cannot all be a mere happening. If it is true that intelligence produces more than ignorance, then excess in wealth-producing power must hold some relation to excess in knowing and doing power.

Consider for a moment what is involved in the showing that each person in Massachusetts has a daily wealth-producing power 29 cents in excess of the average for the nation at large. It means that for each person the average annual excess is \$88.74. It means that for all the people of the State the annual excess is \$198,686,802. That is to say, the productive energy of Massachusetts yields nearly \$200,000,000 a year more than it would yield if the per capita productive capacity of the State were no greater than the average throughout the country. This is twenty times the annual running expenses of the public schools. It is not necessary to attribute to the schools this vast excess of production above the average for the country to prove that they pay enormous material dividends. If so humble a fraction as a fifth or even a tenth part of this excess, or of an aggregate much less than this excess, of \$200,000,000 can be traced to the schools, they are yet securities that each year return to the State much more than their annual cost. The education of the people, combined with the openness of the avenues by which the people may rise, works in two ways. It stimulates material wants on the one hand; it makes them more numerous, complex, refined. And all this, on the other hand, makes a stronger call both

for high directive ability and for skilled labor to supplement such direction. Thus the field for production is enlarged and, at the same time, husbandmen to till it are trained.

It is impossible, of course, to say how much the high school contributes to this industrial superiority, either indirectly in what it does for the school system as a whole or directly in the training it gives its own pupils. It is safe to assume, however, that if Massachusetts is to maintain its high place as a wage-earning State it must rely more and more on doing the finer, the higher, the more difficult kinds of productive work, — work, therefore, whose trend it is to call for increasing skill not only in planning it but also in doing it when it has been planned. And this means that it is sound public policy to encourage drawing and other industrial aspects of education, to extend the systems of manual training, to establish textile and similar schools, to foster the higher schools of applied science, to make it possible, through State scholarships in such schools, for the promising poor to receive that higher training which their minds merit but their purses forbid, — in short, to welcome any methods of education that promise to recognize more fully the realities of life and to do more for the motor and executive functions that need to be trained to cope with such realities. With such a public policy the public high school cannot but hold the closest and most vital relations. I do not myself rest the argument for the encouragement of such a policy on the mere material advantages that come from it. Its utilitarian values are recognized, indeed, but apart from all considerations of dollars and cents, there are intellectual and moral values of supreme moment that amply justify it. I need not dwell on these higher values in this presence. In our technical schools there is a growing appreciation of the æsthetic and ethical aspects of themes too commonly supposed to be outside the pale of such regard. In our literary schools, laboratory and manual exercises are winning steadily increasing recognition. I deem it a happy conjunction that so many who urge the spiritual argument are ready to unite with those who press the material in framing common curricula. Certain it is that schemes of education to-day may contemplate more directly than in former

Price to be
paid for the
retention of
industrial
supremacy.

Other
arguments
than the
material.

years the so-called utilitarian values without dethroning at all the traditional spiritual ideals.

Is the tone of this paper too optimistic? Let me frankly admit, then, that there are respects wherein the best of our high schools admit of great improvement; and as for the worst of them, nothing short of a vigorous shaking up of their dry bones will meet the exigencies of their case. One's attitude towards the high schools of the Commonwealth turns very much on whether one is looking down the hill up which they have thus far come or up the hill where they still ought to go. One may feel proud in the one case and solicitous in the other, rejoice in the movement hitherto and grieve that any break should check its triumphant advance. We have a right to be gratified, but no right to be satisfied. One of the strongest signs of an unhealthy state is perfect satisfaction with an existing state. Perfect satisfaction means easy satisfaction; easy satisfaction, a low ideal; a low ideal, cessation of growth; and cessation of growth, retrogression and stagnation. When, however, the question is asked whether the facts justify the public in maintaining the high school system, a broad view permits but one answer, and that answer, after making every allowance for imperfections, avoidable and unavoidable, is an unhesitating "yes,"—an answer that may be given with increasing emphasis as the system gains in efficiency.

Perfect
satisfac-
tion an
unhealthy
sign.

The final
answer.

THE HIGH SCHOOL STATISTICS OF MASSACHUSETTS.

Prepared to accompany and supplement an address by Frank A. Hill, Litt. D., Secretary of the State Board of Education, before the New England Association of Colleges and Preparatory Schools at Springfield, Saturday, Oct. 15, 1898, on the theme, "How far the public high school is a just charge upon the public treasury."

Sources of Information.—The statistics of this abstract are obtained chiefly from two sources: 1. The school returns that are required by law to be sent to the secretary of the State Board of Education on the first of May each year. 2. A report on the condition of Massachusetts high schools in accordance with data gathered in October, 1897, by J. W. MacDonald, agent of the State Board of Education. This report is given in full in the sixty-first report of the State Board of Education. It is also printed separately and may be obtained on application to the secretary at the State House in Boston. The report covers 244 high schools,—all from which responses were obtained. Its figures, therefore, need to be slightly increased in order to be true for the 262 high schools of the State.

Number of High Schools.—The following data are from the school returns for 1897:—

Number of towns and cities in the State,	353
Number required to provide free high school tuition,	353
Number required to maintain high schools,	185
Number maintaining high schools, but not required to do so,	70
Number required to provide free high school tuition outside,	115
Number entitled to State help in paying tuition outside,	72
Number of high schools in the State,	262

High School Teachers.—By the school returns received May 1, 1897, the number of high school teachers was reported to be 1,283; by those received May 1, 1898, the number was 1,384. Mr. MacDonald's report, based on data gathered between the foregoing dates, and covering 244 schools, gives 1,312 teachers, of whom 13, or 1 per cent., are graduates of scientific schools, 170, or 13 per cent., of normal schools, and 872, or 66 per cent., of colleges, leaving 257, or 20 per cent., unclassified. The proportion of men to women among high school teachers is about 1 to 3; among public school teachers in general, 1 to 10. Of the principals 22 are women. From the foregoing figures and in view of the fact that the collegiate training of women is of comparatively recent development a pronounced trend towards the employment of college graduates for high school positions may readily be inferred. The ideal preparation requires that high academic attainments shall be supplemented by professional training. By the school

returns received May 1, 1896, it appeared that of 258 high schools, there were 137 with 3 or more teachers each, 59 with only 2 teachers each and 62 with only 1 teacher each.

High School Pupils.—The returns for 1897 give the number of different high school pupils for the preceding school year as 36,288; for 1898, as 38,133. Mr. MacDonald's report gives the number in actual attendance at a given time upon 244 schools as 33,396, of whom 13,082 were in the first year class, 9,151 in the second, 6,343 in the third, and 4,820 in the fourth and higher classes, the corresponding percentages being 38, 27, 19 and 15. At the same time there were 18,164 pupils in the ninth grade of the grammar schools below these high schools, and 22,467 in the eighth. Of the 262 high schools in the State, 1 has between 1,100 and 1,200 pupils, 1 between 900 and 1,000, 2 between 800 and 900, 1 between 600 and 700, 4 between 700 and 800, 4 between 500 and 600, 7 between 400 and 500, 10 between 300 and 400, 14 between 200 and 300, 54 between 100 and 200, 82 between 50 and 100, and 82 less than 50. The total enrolment for the 82 schools with less than 50 pupils each is 2,101, the average being 26; for the 82 schools with between 50 and 100 pupils each, 5,796, the average being 71; for the two groups united, or 164 schools, 7,897, the average being 48; for the remaining 98 schools, 28,391, the average being 290 each. These figures show how important it is, in considering to what extent good high school conditions prevail, to think of the number of pupils reached by such conditions as well as the number of schools.

Ratio of High School Enrolment to the Total.—The total number of different pupils attending the public high schools according to the returns of 1897 is 8.3 per cent. of the total number of different pupils attending all the public schools. This does not mean that 91.7 of the pupils never reach the high school. If every child in a community of constant population were to attend the high school and graduate from it, the high school enrolment (four grades out of thirteen) would not be far from 31 per cent. Such an enrolment, however, would imply 100 per cent. of enjoyment, making the percentage of enjoyment a little over three times that of enrolment. An enrolment of 8.3 per cent. means at least 25 per cent. of enjoyment. That is to say, a number of children equal to 25 per cent. of all enrolled in the public schools actually enjoy more or less of the advantages of the high school. The following table shows the enrolment and enjoyment percentages of small places as compared with large:—

	Enrolment.	Enjoyment.
Ten largest cities,	6.7	20
Ten largest towns,	10.6	32
Ten largest towns under 5,000 each,	11.7	35
Thirty-five towns of highest enrolment,	20.3	61
The State, — 353 towns and cities,	8.3	25

Of the 35 towns of highest enrolment, 30 have less than 2,500 inhabitants each. While the larger places show the smaller percentages, their high school standards are higher and their high school pupils older than in the smaller places. The returns of 1898 show that the high school enrolment is still gaining heavily on the total enrolment. During the past fifteen years, the population of the State has increased 40 per cent., the total public and private school enrolments 41 per cent., and the public high school enrolment 100 per cent. (from 19,423 in 1883 to 38,133 in 1898).

Cost of High Schools.—Separate returns of the expenditures for high schools are not made to the State. By indirect methods, these expenditures for 1897 are found to be approximately as given in the following table:—

Cost of high schools, exclusive of buildings,	\$1,500,000 00
Cost of high school buildings,	900,000 00
Total cost of high schools, including buildings,	\$2,400,000 00
Cost of the public schools, exclusive of buildings,	\$9,132,292 00
Cost of the public school buildings,	3,258,346 00
Total cost of the public schools, including buildings,	\$12,390,638 00
Ratio of total high school cost to total public school cost, . . . . .	.19
Ratio, excluding buildings, . . . . .	.16
Taxable property of the State May 1, 1896,	\$2,622,520,278 00
Amount raised by municipal taxation in 1896,	39,954,339 00
Total municipal tax,—dollars on a thousand,	15 23
Total public school tax,—dollars on a thousand,	4 72
Total high school tax,—dollars on a thousand,	91
Public school tax, excluding buildings,—dollars on a thousand,	2 95
High school tax, excluding buildings,—dollars on a thousand,	58

Salaries.—The aggregate of salaries paid the principals of high schools according to the returns of 1897 was \$362,511.30, the average per principal being \$1,383.63. Of 262 principals, 14 received less than \$500 each, 65 between \$500 and \$1,000, 126 between \$1,000 and \$2,000, 31 between \$2,000 and \$3,000, and 25 between \$3,000 and \$4,000.

Cost of Instruction in Different Subjects.—The lengths of time given to different subjects of study in all the high schools, as well as the aggregate cost of instruction in all these subjects, are approximately known. From these data it is roughly estimated that the cost for English is \$150,000, for sociology (history, civil government, economics) \$150,000, for mathematics \$225,000, for foreign languages \$600,000, for sciences \$240,000, for drawing and music \$105,000, for manual training \$30,000.

High School Buildings.—Of 244 high schools reported by Mr. MacDonald, 141 have suitable buildings. The buildings of 27 schools are reported as fair; of 76 as inferior or poor. Of the suitable buildings, many are new and some superb,—commodious, well lighted, well heated, well ventilated, amply equipped with laboratories, halls, libraries, teachers' rooms and

offices, in addition to well-appointed class and recitation rooms. Frequently they are decorated with pictures, reliefs, statuary, — the gifts of pupils, graduates or friends. In some instances the grounds are spacious and park-like. Some of the poorer buildings are soon to be improved or to give way entirely to new structures. People with means have occasionally made gifts of schoolhouses to towns where they were born or have lived or have become interested, — buildings often much finer than any the towns would be justified in taxing the people for. This trend to remember towns with educational gifts has been especially conspicuous and gratifying in connection with the public libraries of the State, which are so well fitted to supplement, in many ways, the work of the schools. Of 353 towns and cities, 344 now have such libraries, their buildings in numerous instances being the graceful and highly prized gifts of public spirited citizens.

Sanitary Conditions. — Of 244 high school buildings, the sanitary conditions of 146 are reported as good to excellent, of 38 as fair and of 60 as inferior or poor.

Pupils in Enjoyment of Good Schoolhouse Conditions. — Satisfactory conditions of sanitary and other equipment are found more frequently in the high school buildings of the cities and larger towns than in those of small rural towns, and so are accessible, in all probability, to more than 80 per cent. of the total high school membership of the State. There are 32 cities, for example, whose population in the aggregate is 65 per cent. of the total population of the State, in which the schoolhouse conditions are generally satisfactory. To these cities must be added a goodly number of the larger towns. While the number of towns with inferior schoolhouse conditions is quite large, the number of pupils required to endure these conditions is relatively small.

Courses of Study. — Data from 244 high schools show that 207 have courses four years long or longer, 23 have courses not exceeding three years, 9, courses not exceeding two years, 1, a course of one year and 4 with courses of unreported length. The attendance in October, 1897, upon these 207 schools was 32,048; upon the remaining 37 schools, 1,348. That is to say, 96 per cent. of the high school pupils of the State have access to four years' courses. Of the schools with courses for four years, 41 offer a single course each, 58 two courses each, 76 three, 15 four and 6 a still larger number, while there are 9 schools with a single course of five years each, 1 with three courses of five years, and 1 with a course of six years. In 52 of the schools with four years' courses there is also a three years' course, and in 13 schools a two years' course. A few schools offer electives so freely that a large number of courses is possible in each. Optional courses are desirable and feasible without much added cost in large schools with numerous teachers. The multiplication of courses in small schools is burdensome and impairs efficiency.

Manual Training in High Schools. — The law requiring every city of 20,000 inhabitants or more to maintain a manual training department in connection with its high school system went into effect in September, 1895.

Twenty-three cities, with a population of 1,494,906, come under this law. Fourteen cities had complied with the law according to the last returns, 2 had plans ready for execution as soon as new buildings were ready, while 7 had taken no action beyond the appointment, in some cases, of committees to report on the subject. Several high schools not required by law to do so have organized manual training courses.

Subjects of Study. — Of 244 high schools, 239 give instruction in Latin, 165 in Greek, 205 in French and 95 in German. English is studied in all the schools. The report for English comes out in this shape: 237 schools give instruction in literature, 223 in rhetoric or language lessons, 208 in composition or language lessons and 129 in grammar or language lessons. What seems to be omitted under one head is generally taken up under another head or, in a few cases, neglected. Of the sociological group, history is taught in 238 schools, civil government in 215, political economy in 77 and moral philosophy in 17. Of the mathematical group, algebra is taught in 243 schools, geometry in 241, trigonometry in 48, arithmetic in 170 and book-keeping in 172. Of the science group, physics is taught in 234 schools, chemistry in 200, botany in 220, geology in 154, astronomy in 159, zoölogy in 90, physiology in 164, physical geography in 137 and political geography in 24. Of the art and music group, drawing is taught in 162 schools, color in 21 and music in 170. Of miscellaneous subjects, manual training is taught in 22 schools, stenography in 42, typewriting in 41, penmanship in 8 and physical culture in 35. Seven schools give instruction in psychology, 8 in commercial law, 5 in elocution, 3 in rhetoricals, 1 in commercial geography, 1 in domestic science (Brookline) and 1 in Spanish (Lynn). Of the 244 high schools reporting, a few may have omitted in their reports subjects which they teach. Subjects reported under one head by some schools may be placed under a different head by other schools. In numerous cases the foregoing subjects are optional. They are distributed in various ways among the courses of study. Probably most schools have physical exercises of some sort though only a few report that physical culture is in the curriculum. In many schools, usually the smaller ones, the number of recitation periods required by the course of study is much larger than the number of periods the teaching force commands; in many others, usually the larger schools, the reverse is true. For the time apportionments to the various subjects, as well as for the percentage distribution of time to the various groups, consult Mr. MacDonald's report. Courses of study are determined by the local school boards and so naturally reflect the various local and special influences to which such boards are subject.

Laboratories. — Sixty-six high schools are reported as having good laboratory facilities for the study of science, 80 as having fair or limited facilities, and 98 as having poor or none. In view of the fact that high school laboratories are comparatively recent in inception, the figures show a marked trend towards laboratory methods. This trend becomes more obvious when it is noted that the number of pupils reported to be in the 146 schools with good or passable laboratories is 27,899, while the number in the 98 schools with poor or no laboratories (usually none) is only 5,497.

Libraries.—One hundred and thirty-eight high schools have libraries ranging in number of volumes from 100 to 7,500; 84 have libraries of less than 100 volumes each. There are 25 high school libraries of more than 1,000 volumes each, of which 5 have from 4,000 to 5,000 volumes. The public library, by giving special attention to the needs of the schools, has largely reduced the need for general school libraries.

Relations to Higher Institutions.—Mr. MacDonald's report shows that 244 high schools sent 374 graduates to the normal schools in 1896 and 526 in 1897; 232 to high scientific schools in 1896 and 274 in 1897; 715 to the colleges in 1896 and 789 in 1897. The number of graduates sent to other high institutions is not given. The totals are 1,301 for 1896 and 1,589 for 1897. These figures need to be slightly increased for high schools that failed to report. The raising of the standard of admission to the State normal schools in 1896 has increased the interest of high school graduates in the training there given.

Number of Grades below the High School.—Of 244 high schools, 96, with 6,757 pupils, are preceded by eight grades, or years, in the schools below; 146, with 26,385 pupils, by nine grades, and 2, with 191 pupils, by ten grades. Statistics indicate that where there are eight grades the high school membership is relatively larger than where there are nine, the total attendance upon the public schools relatively smaller (owing to the non-existence of a ninth grade), and the tendency to drop out of the high school more marked (owing to premature admission).

Methods of Admission.—Pupils are examined in grammar school subjects for admission to the high school in 93 towns. They are admitted upon their grammar school record in 136 towns. Eleven towns report a mixed system, in which the grammar school record and examinations both figure. Four schools out of the 244 upon which this report is based do not return their plan. Probably in many towns where a system of promotion based on the school record is the only one reported, examinations are resorted to in special cases.

Length of Schooling.—High schools are required by law to be kept forty weeks exclusive of vacations. If a required high school is kept less than thirty-six weeks, the legal penalty is forfeiture by the town of its share in the income of the school fund. Of 244 schools reported 151 were kept forty weeks; 11, thirty-nine weeks; 31, thirty-eight weeks; 2, thirty-seven weeks; 39, thirty-six weeks; and 10 either a less time or for no reported time. It should be noted in this connection that 70 towns maintain high schools though not required to do so.

Sessions.—Of 244 high schools, 139 have single sessions (two each day) and 105 double sessions (one each day). The cities and larger towns generally adopt the single session plan. The single session is four hours long in 1 school, four and one half in 2 schools, four and three quarters in 3, five in 93, five and one quarter in 1, five and one half in 8, five and three

quarters in 3 and six in 1. The double session is four and one half hours long in 1 school, four and three quarters in 1, five in 25 schools, five and one quarter in 8, five and one half in 23, five and three quarters in 5 and six in 24. The morning session is generally three hours long.

Recitation Periods per Day.—Of 244 high schools, 34 have five recitation periods each day, 92 have six, 32 have seven, 31 have eight, 12 have nine, 14 have ten, 14 have eleven, 12 have twelve and 3 have larger numbers. The larger numbers belong to schools that usually have but one teacher each.

Outline of Massachusetts High School Development.—By a law of 1647 a grammar school (a college preparatory school) was required of every community that had a hundred householders. In 1789, so many towns had fallen away from the requirement that a law was passed requiring only towns of 200 householders to maintain the grammar school. This released 120 towns from the obligations of the old law, leaving 110 towns out of 265 in the State still subject to it. In the same year the school district system was authorized, making the school district and not the town the educational unit for most purposes. District spirit developed at the expense of town spirit. The grammar school, which was the town school, suffered from the decline in town spirit and from the rise of the academies. In 1824, of 172 towns that should have been maintaining grammar schools, very few were doing so. The law was a dead letter. Accordingly the Legislature of that year exempted all towns whose population was under 5,000 from maintaining the grammar school,—165 towns of the 172 just mentioned. In 1826, towns of 4,000 inhabitants were required to maintain a first grade high school (practically one with Greek) and towns of 500 families a second grade high school (practically one without Greek.) The requirement for towns of 500 families was shortly after repealed. In 1836, it was restored; in 1840, repealed again; and in 1848, restored again. In 1891, every town was ordered to provide free high school tuition; if not in a high school its own, then in that of another town. To relieve certain towns from the hardship of this law, the State reimburses their expenditures for tuition. In 1838, of 43 towns required to maintain high schools only 14 were doing so. In 1852, there were 64 high schools; in 1866, 156; in 1876, 216; in 1886, 229; to-day, 261. In 1898 the Legislature abolished the distinction between first grade and second grade high schools and defined more fully the aims and scope of high school instruction. In 1886 evening high schools were authorized for places whose population exceeds 50,000. Nearly all the high schools are for both sexes and have been since 1826.

State Reimbursement of High School Tuition.—All towns whose valuation is less than \$500,000 are entitled to State reimbursement for their high school tuition expenditures in other towns, provided they have no high school of their own. If they furnish some of the required high school instruction at home and the rest outside, they will be reimbursed for the latter. Children who attend outside high schools must first have gained the approval of their home committee to do so.

The law authorizing State reimbursement went into effect April 4, 1895. For 1895-96, the State reimbursed to 38 towns \$3,873.05 for the tuition of 143 pupils in 29 outside high schools, at an average annual rate of \$31.05 per pupil. For 1896-97, 43 towns were paid \$6,121.72 for 219 pupils in 33 schools, at the rate of \$31.72 per pupil. For 1897-98, the figures will be larger. Seventy-two towns in 1897 had a valuation under \$500,000.

With few exceptions the pupils from these assisted towns attend the better high schools of the State.

The Law of 1898.—The high school must have at least one course of study four years long. It must prepare pupils for State normal schools, high scientific institutions and colleges as well as for the purposes of general culture and training. It must keep forty weeks. Towns may provide for a part of the high school course in outside high schools. Towns without high schools of their own *must* pay for the tuition of properly qualified pupils in the high schools of other towns and *may* pay for their transportation. To enable the lower grades to qualify their pupils better for the high school the minimum requirement of six months' schooling for towns under a population of 4,000 has been raised to eight months, the average for the State being nine months and three-tenths.

Remarks.—The foregoing statistics show that the great majority of high school pupils are comfortably housed and have access to generous courses of study and approved methods of instruction. The outward signs of prosperity are numerous and impressive. The number of towns in which high school conditions are seriously beneath a fair standard should not mislead one. The number of pupils in these schools, however, is relatively small. When the attention is turned from data based on numbers of towns or schools to data based on numbers of pupils, the favorable showing which the facts make comes out in a truer light. The small schools, handicapped as they are, are nevertheless expressions of civic interest, pride and sacrifice. Many of them do work that can ill be spared. If conditions should permit them to concentrate their energies more fully on a good general course framed for those who are going no higher, but which would be acceptable to the colleges, should any who take it desire to go higher, their burdens would be reduced and their value increased. In round numbers, there are 5,000 pupils, or 13 per cent. of the high school enrolment, fitting for college, while there are 35,000, or 87 per cent., taking courses that do not properly connect with the college. The people have generously coöperated with the colleges for the sake of the 13 per cent., and even at the expense of the 87 per cent. The colleges should coöperate more freely with the people for the sake of the 87 per cent. All high schools would receive an uplift from such coöperation, but none more than the small high schools.

As to the high schools in general, it may be said that statistics tell only certain visible or measurable things about them; they cannot directly touch the spirit and the efficiency of their work. And yet it is safe to infer from the outward signs of prosperity some corresponding measure of inner efficiency, certainly enough to justify past effort in building up the high school system of the Commonwealth and new endeavor in making it still worthier of popular approval.

F.

THIRD REPORT

UPON A

COURSE OF STUDIES FOR ELEMENTARY
SCHOOLS.

By JOHN T. PRINCE,

Agent of the Massachusetts State Board of Education.

REPORT.

In previous reports upon a course of studies for elementary schools* I presented some conclusions based upon a careful inquiry respecting the opinions of prominent educators and the practices of types of the best schools in this and other countries. These conclusions relate to (1) the age of admitting pupils, (2) subjects of instruction, (3) the grouping of subjects, (4) the relative amount of time which should be given to each group, (5) correlation of studies, (6) departmental instruction, (7) elective studies, and (8) the grading and promotion of pupils. There remain to be considered four other features of a course, viz., the scope, relations, sequence and limitations of the various subjects.

The consideration of these features will be confined mainly to suggestions and recommendations for the making of a course, followed by a brief outline of a general course. The conclusions reached are drawn from observation and experience, supplemented by a careful study of some of the best courses in the country and of various general and special reports that have been made.

Before referring to the special subjects of a course, I desire to direct attention to some general features of existing courses of studies and practices relating to them.

My observations of schools, coupled with the present investigation of courses of studies, have led me to believe that the plan of putting before teachers a detailed statement of all they are expected to accomplish during fixed periods of time, is wrong in principle, as it is harmful in practice. Some courses even go so far as to point out the exact pages of the text-book which are to be gone over in a given period, the presumption

* See reports of Massachusetts Board of Education, 1895-96, pp. 437-480, and 1896-97, pp. 279-314. These reports are also printed in pamphlet form, and will be referred to in this report as "Preliminary Report" and "Second Report."

being that the topics included in those pages constitute the entire work of all the pupils. The leveling system is complete where examinations based upon these requirements are given by some one other than the teacher. Nothing in this inquiry has been more evident than the fact that much more should be done than is now generally done to reach individual pupils, by giving them instruction and training suited to them both in kind and amount. The excessive number of pupils to a teacher found in most schools renders it impossible to accomplish this result in any degree satisfactory to the best teachers. The brighter and quicker pupils, as well as the duller and slower ones, are not reached in the way they should be reached. The present generally followed plan of keeping together for long periods all the pupils of a large class upon the same kind of work is harmful alike to the quicker pupils and the slower, — to the former in undue suppression and lack of stimulation to healthful effort, and to the latter in discouragement and superficialness.

It is well known that the tendency of unwise and unskilled teachers is to emphasize the quantitative rather than the qualitative side of their work; to regard the work of teaching mainly as an assistance to the pupils in obtaining a certain amount of knowledge or information, and, as this can be measured best by the pages of the book or the per cent. marks in an examination, these standards are uppermost in their minds. The method of apportioning the subjects and topics in a course of studies so that the attention is fixed mainly upon the amount to be learned tends to strengthen these convictions of unwise teachers and places unnecessary restraints upon wise ones. It may be said that, whenever a course of studies gives a great degree of freedom to teachers, there is likely to be a neglect of essentials and a weakening of work that may be called consecutive. But this can be true only of unwise and unskilled teachers. With those teachers who understand what all their pupils most need and who know how they are best to be provided with it, the faults above alluded to are not likely to exist. To them the fixed bounds of non-essentials stand in the way of a proper adjustment of the work to the needs of the pupils. In matters only that are essential or important should limitations be indicated in a course of studies. But even the limits of the

essentials of knowledge might well be omitted in a course to be followed by one teacher alone. It is only in a system of schools where two or more teachers are employed that a limited plan or program of studies is needed. The fact that the non-essential subjects are almost limitless in number and kind renders it impossible to make a selection of such subjects which will be suitable alike for all schools and classes or for the pupils of all teachers.

For these reasons, a course of studies intended for the schools of a large section, as of a county or State, should first of all be general in character, and be confined largely to the designation of subjects that are essential or important. This course may well be used as a basis of a more detailed course for a comparatively small group of schools. Moreover, the subjects assigned to particular times should be so arranged as to permit a division of the school into groups or sections of pupils of different degrees of ability. Further, the subjects should be so arranged as to permit extra work to be done by individual pupils. This feature of a course was mentioned in one of the recommendations contained in the report upon the grading and promotion of pupils. It was as follows: —

The course of studies as far as possible should be made so as to assist the teacher in adapting the work assigned and called for to the abilities of all pupils in every class. This can be done by designating important or principal features which must be taken by all for a proper understanding of the subjects, and by suggesting supplementary work that may be done profitably by pupils after they have acquired the necessary portions, and while they are waiting for others who have not acquired them.*

One other feature of a general course of studies should appear, — that of giving all subjects such a place as will permit a rational and orderly correlation of the studies not only of a single group but also of all groups so far as it is possible to do this. Upon this and other points the recommendations of the Second Report are as follows: —

1. The selection of topics should be so made as to be of general use. This general course to serve as a basis for more detailed courses in given localities.

* Page 36 of Second Report.

2. The selection of topics should be made from all groups, so that at least one subject of every group will be presented for a given time.

3. The selection of topics from each group for a given time should be made with reference to their logical relations to the topics of all other groups, so far as the nature of the subjects and a proper treatment of each will permit.

4. No reference to a centre or to centres of correlation need be made in the general course, it being understood that each subject taught will be the centre, with which all other subjects at the time will be correlated.

5. No reference to the place or time of isolation in teaching need be indicated, since that and all other matters relating to methods of treatment will be left to the teacher.*

It may be necessary to designate periods of time during which prescribed work must be accomplished, but it should be done in such a way as to permit the elastic system of grading and promotions recommended at the close of the Second Report.† This may be done by designating the *minimum* of work which is to be done within certain periods, and by placing in a parallel column the time at which all that goes before shall be completed. The outline of subjects thus presented will be only the essential or most important work required to be done.

Some superintendents follow the plan of placing a general course before their teachers, and of supplementing this course by specific directions in monthly grade meetings. This plan succeeds well where too many details are not given, and where the independence and originality of the teachers are not interfered with. It has the advantage of affording opportunity for constant adjustment of work to new and varied conditions, and of assisting untrained or inexperienced teachers in a proper interpretation of directions. This plan is especially advantageous for directors of special subjects, like drawing and nature study, inasmuch as it gives opportunity for instructing teachers in technical details which are not well understood by them.

The plan of issuing separate pamphlets or slips, containing the prescribed work for each subject in all the grades, has the advantage of bringing before each teacher a statement of what is expected to be done in a given subject in all the grades, thus

* Page 13 of Second Report.

† Pages 35-37 of Second Report.

making it easy for every teacher to know what every other teacher is expected to do,—a necessary condition for good work. This practice of teachers is likely to be discouraged and the work narrowed by following the plan adopted by a few superintendents, in presenting the prescribed course of each grade in a single pamphlet.

The features of a course of studies which I shall consider briefly in this report are: first, the scope or aim and range of subjects to be presented under each group; second, the relation which the subjects of a group bear to each other and to the subjects of other groups; third, the sequence or order in which the various subjects or parts of subjects should be presented; and, fourth, the limitations both in time and substance which should be made in each branch of study.

The aim or purpose of a given subject may be general and remote, or specific and immediate; a course of studies has to do mainly with the former, the latter aim belonging more to a statement of methods which are supposed to be known by teachers. The range of topics outlined in each branch of study will be determined partly by the aim and partly by the conditions under which the school is carried on,—these conditions being the number of pupils, the number of classes, the length of the course, the number and character of the teaching force. It is understood, of course, that, as “preparation for complete living” is the end of education, so all subjects and parts of subjects that do not contribute to this end are to be excluded from the course.

The subjects of study should be so placed in a course as to assist the teacher to correlate them in teaching; that is, to present them in right relations, by which each fact of knowledge or information acquired shall be fortified and enriched by others, and by which good habits of thinking shall be encouraged. So far as possible, the relation of each subject to its use, and especially to its use in life, should be indicated.

The sequence or order in which the various topics should be presented is determined by their relations of dependence one upon another, and by the natural order in which the mind acts. The sequence of subjects in a course should not be so marked or finely drawn as to cause the teacher to think more of the

relation or dependence of subjects one with another than of the relation of each subject to the mind and life of the child.

The limitations of any branch of study in respect to time and subject-matter will be determined largely by the relative importance of that branch or of the subjects of that branch as a means of accomplishing the ends to be desired. Other limitations are those which are determined by the length of the session and school year and by the number of classes and pupils to a teacher.

The percentages contained in the tables of the Preliminary Report of this series are intended to show the relative importance of the various subjects, and the time program on page 44 of that report shows the actual time given to each group of subjects, on the supposition that the school day is five and one-half hours long, and that there are five school days in the week. For future reference in the apportionment of time limits to separate subjects, that table is here reproduced, with change of groupings made in Table XV., in which literature is classed with language instead of history. The table is as follows:—

Time Program, showing the Number of Minutes a Week spent in Recitation by a Pupil or Group of Pupils in Five Groups of Subjects; also the Number of Minutes a Week given to Opening Exercises and Recesses and to Study in School.

GROUPS OF STUDIES.	Sub- pri- mary.*	Grade 1.	Grade 2.	Grade 3.	Grade 4.	Grade 5.	Grade 6.	Grade 7.	Grade 8.
I. Language and literature,	348	378	378	371	312	320	320	380	380
II. Mathematics,	72	108	108	146	156	160	160	184	230
III. Elementary science,	240	108	108	146	195	200	200	184	138
IV. History,	120	90	90	97	117	120	120	172	172
V. Miscellaneous,	420†	216	216	215	195	200	200	230	230
Opening exercises, physical exercises and recesses,	-	250	250	225	225	200	200	200	200
Study in school,	-	500	500	450	450	450	450	300	300
Total school time,	1,200	1,650	1,650	1,650	1,850	1,650	1,650	1,650	1,650

* Figures in this column indicate the number of minutes spent in recitation and busy work taken together.

† Including physical exercises, games, kindergarten occupations, etc.

It should be understood that the figures in the above table represent the amount of time given in recitation only by a

pupil or a group of pupils. They do not express the amount of time given to study, which of course will depend upon the number of sections in a room and upon how much the sections recite together.

In considering the five groups, the subjects of scope, relations, sequence and limitations will be set off by figures in the order named.

GROUP I. — LANGUAGE.

1. Language is the expression of thought. The term as used in the school curriculum is intended to mean the expression of thought in words. As a subject of instruction, it relates to getting thought by means of the printed or written page, and to expressing thought both by speaking and by writing. Language, therefore, includes upon the practical side reading and composition. Upon the theoretical side it includes grammar, rhetoric and logic, the elements only of which should be taught in the grammar school, and always in close connection with reading and composition. In some schools a foreign language may be taught during the last years of the grammar school course, the subject being offered as an elective for those who can carry on the regular English branches.

The immediate aim in language teaching is the power to gain and communicate ideas through written or spoken words. This will involve (*a*) power to read intelligently and (*b*) power to speak and write correctly and effectively.

The reading must include, first, a mastery of the symbols, that is, learning to read; and, second, such companionship with and study of good literature as shall develop power to understand and appreciate the best in literature.

The power to speak and write correctly and effectively involves, first, the mastery of written and spoken forms in accordance with accepted usage; second, analysis of language to discover the rules of usage; and, third, constant practice in speaking and writing, both before and after such analysis.

While the elementary course in grammar has for its chief end correctness, it may also include some features of effectiveness, such as clearness, conciseness and force. The most important fact to be kept in mind is that the study of this subject in the grammar school should be elementary and very

practical, the aim being to teach principles by which the pupil is enabled, first, to understand the language of literature; and, second, to express his thoughts in some measure as they should be expressed. An incidental but by no means unimportant end in the study of grammar is mental discipline, — a power of the mind to generalize, to make rules from facts, and to apply principles and rules to practice.

2. It is plain to see that all forms of language as branches of study are closely related to one another and to nearly all other branches. The forms of expression in the reading books become models for imitation and practice in all departments of composition work, which serves both as a means and as an end of grammar and rhetoric. The relation of the theoretical side of language to practice both in reading and in writing should be indicated by prescribing practice in analysis of sentences and in constant application of the rules of syntax most frequently violated.

The work in composition should be closely related to the pupils' thinking; and, as the regular subjects of study are supposed to occasion thought, they therefore constitute a good basis for language in the recitation. Moreover, the regular studies, especially geography, history, science and reading, should furnish topics constantly for composition.

Some of the most obvious relations which the branches of this group have with one another and with other subjects of study are matters of apperceptive teaching, which every good teacher understands, and which therefore need not be indicated in a course of studies.

3. In securing a mastery of forms in language, a certain definite order should be followed. In learning to read, that order is governed by a well-known principle of proceeding from a vague knowledge of the whole through analysis and synthesis to a clear knowledge of the whole. While a course of studies may not give the steps by which this principle is observed, it may properly state that the teaching should begin either with words alone or with words in sentences, and that analysis and synthesis of words follow in natural order. It may also state that the first words and sentences should be read from the blackboard, and afterwards from the chart and from the first readers. The order to be followed at this stage in the

selection of reading material is sufficiently indicated by the ordinary first and second readers. The order of selection after the pupils have acquired skill in reading should be determined by the tastes and abilities of the children, the selection to be made from given lists of books.

The sequence to be followed in the technique of writing may be sufficiently indicated by stating that during the first two years much copying of good texts should be done, beginning with words whose letters are easily made, as *man* and *cow*, and proceeding by degrees to words more difficult to write. Some courses prescribe much practice with single letters to be taken up in a given order.

In spelling, it appears to be the custom in the best courses to prescribe some oral spelling for the lower grades, the main attention, however, to be given to writing words in sentences. The words selected for drill in these grades are to be found in the regular reading books. Beyond the third grade, in addition to the words used in the composition exercises, lists of words such as are found in a good spelling book may be used with profit for dictation, the words to be written both singly and in sentences.

English grammar may be regarded as one of the few strictly sequential subjects of the elementary course. Each topic should lead up to the next, and all should have distinct reference to the ends already pointed out. The following general outline shows the order which may be pursued in an elementary study in this subject:—

- (1) The sentence and kinds of sentences defined.
- (2) Subject and predicate, simple and complete.
- (3) Parts of speech.
- (4) Limiting phrases and clauses.
- (5) Nouns, — kinds and forms.
- (6) Pronouns, — kinds and forms.
- (7) Rules of syntax, respecting case of pronouns.
- (8) Verbs, — kinds and forms.
- (9) Rule of syntax, respecting the form of the verb.
- (10) Adjectives, — kinds, forms and uses.
- (11) Adverbs, — kinds, forms and uses.
- (12) Prepositions, — uses.
- (13) Conjunctions, — kinds and uses.

4. The amount that can be done in the various language subjects will depend largely upon the grade and natural abilities of the pupils. The exact amount to be done in some subjects should not be prescribed, while in others the amount prescribed will indicate the least that should be done in a given period, with a provision for sufficient time to permit classes or individual pupils to do as much as they are able to do.

At the end of the second year the pupils should have so far mastered the symbols of reading as to read easily at sight any ordinary second reader. To accomplish this, several first readers and several second readers should have been read through during the two years. After the second year the reading should be carried on in the two lines already indicated, an average of ten pages a week of each kind being required in all grades. It should be remembered that this is the minimum required, and does not include the amount of reading done at home or the extra reading by individual pupils. In most schools probably the limit set is no more than half of what can be well done.

Except in special instances, no set exercises in writing should be given after the fifth year. Whatever is needed to secure legibility and rapidity of writing after this time should be done in connection with the composition and dictation work.

Most of the special instruction in spelling should be given during the first six years. With the exception of occasional reviews, the work in this branch during the last two years of the course should be confined to the correction of words misspelled in the composition and other written exercises.

The limits in written language are difficult to define. It is understood that more depends upon the quality of work done than upon the quantity; and yet it is manifestly the latter feature only that can be presented in a course of studies. An average of ten lines a day of carefully written original work during the entire course beyond the second grade, and an equal amount of dictation for instruction in punctuation, spelling, etc., from the third to the sixth grades inclusive, should be the minimum of written work required, it being understood that monthly compositions should be required of all pupils in the three highest grades.

In designating the subjects of this group, no mention was

made of memorizing choice selections of poetry and prose. While such an exercise may be brought into close connection with the reading and dictation, particular mention of it should be made in the course. An average of at least ten lines a week should be required to be memorized by pupils of all grades, it being understood that the selections memorized shall be of a high order of literary merit, and adapted to the capacity of the children.

The necessity of limiting the study of grammar in the grammar school to the elements of the study and to its use in analysis and syntax has been referred to. Only those properties of the parts of speech should be required to be learned that are needed for analysis of sentences and for a proper understanding of the rules of syntax. These rules should be limited to rules which are most commonly violated. Not more than ten rules should be made and learned, but they should form the basis of constant practice in the construction of sentences. These and other limitations of the subject appear in what has been said upon the sequence of topics to be studied.

Where there are so many branches in a group as are included in this group, it may be well to designate approximately the amount of time to which the recitation in each branch should be limited. For example, if the recitation time for the language studies should be as given on a previous page of this report, the allotment for each branch may be based upon that time, as shown in the following: —

Time Program, showing the Number of Minutes a Week spent in Recitation by a Pupil or Group of Pupils in Reading, Writing, Spelling, Composition and Grammar.

SUBJECT.	Sub- pri- mary.	Grade 1.	Grade 2.	Grade 3.	Grade 4.	Grade 5.	Grade 6.	Grade 7.	Grade 8.
Reading,	198*	190	190	150	120	120	120	120	120
Spelling,	100 {	50	50	50	50	50	200	160	160
Writing,		60	60	75	60	60			
Composition,		50	78	78	96	82	90		
Grammar,	-	-	-	-	-	-	-	100	100
Totals,	348	378	378	371	312	320	320	380	380

* Including story-telling.

It should be understood that the above figures are only tentative and approximate, and are given merely to show how an apportionment may be made under given conditions. It should be understood also that the time given is the recitation time only of a pupil or group of pupils. The time for writing at the seat outside of recitation in copying or composing is not counted. One advantage as a saving of time which composition, spelling and writing have over some other subjects should be taken into account, and that is the practicability of having all the pupils of a school recite together.

GROUP II. — MATHEMATICS.

1. Mathematics, or the knowledge of quantity and space relations, is taught both for its practical and for its disciplinary value. In the elementary schools it is taught mainly as an art, although the foundations of mathematical science are laid throughout the grammar school course, and in the upper grades something of the science itself is taught. The department chiefly pursued in the elementary schools is that of arithmetic, the elements of geometry and algebra being taught in the upper grades. To these is added a simple form of book-keeping, which may be regarded as an extension of the practical side of arithmetic.

Arithmetic is a knowledge of numbers, their expression, relations and operations. The numbers to be learned are integral and fractional, simple and denominate. So much of this knowledge should be acquired as will help the pupils to solve all the ordinary problems of daily life, and at the same time to serve as a means of mental discipline. The scope of arithmetic in successive grades will be determined largely by the power of the pupils to grasp new relations and conditions. In recent courses a broad basis of subjects has been prescribed in the lower grades, including fractions (both common and decimal), percentage and measurements. The two kinds of work, computations with abstract numbers and work in practical problems, should be presented in all grades, the amount of the former decreasing and of the latter increasing in successive grades.

The aim of geometry in the grammar school is chiefly to supplement the course in arithmetic, and to furnish a good basis for instruction in mechanical drawing and manual training. The work required should be both constructive and inventional, supplemented by as many simple demonstrations as circumstances will permit, the aim being to make the work as practical as possible.

The design of algebra in the grammar school is to give pupils a general idea of numerical relations and operations. Besides furnishing short and easy solutions of problems which are in arithmetic quite difficult, algebra gives pupils the power to state in general terms the conditions of a problem and the process of its solution, and thereby to deal with formulæ and rules more easily than by arithmetic. Moreover, the elementary work in algebra may be so arranged as to give support to the higher form of the study in the high school.

Bookkeeping may be regarded as only one of the many practical applications of arithmetic. Its end in the grammar school is ability to keep accounts which would be ordinarily needed by a farmer, mechanic or small retail shopkeeper. Incidentally there will be acquired in the study some knowledge useful in higher forms of bookkeeping.

2. The close relations of the various departments of mathematics to one another are apparent. So close are these relations in the early stages of algebra and geometry that the subjects may be said to be continuous rather than discrete. This is especially true in many kinds of practical work in which arithmetical processes are shortened by the use of algebraic symbols, and are practically applied in geometrical measurements.

The relation of the subjects of this group to other subjects of study is not so close as to make it necessary to bring them together constantly. Yet the facts of geography, history and elementary science may be sometimes employed in arithmetical operations, to the advantage of all the subjects involved.

3. While it is true, as has been said, that there should be a broad basis of subjects in the lower grades, there is a progressive order in the operations to be performed with numbers which should be prescribed in a course of studies. This order

has to do with the relative complexity of processes and also with the size of the numbers. In integral numbers, the work prescribed should be in successive steps, as follows: (*a*) from 1 to 10, (*b*) from 1 to 20, (*c*) from 1 to 100, (*d*) from 1 to 1,000, (*e*) from 1 to 1,000,000, (*f*) unlimited. In fractional numbers the fractional parts of numbers should first be taught almost from the beginning, and proceed in the third grade with fractional units, using in succession halves, fourths, eighths, thirds, sixths, twelfths, ninths, fifths, tenths, sevenths and elevenths. Decimals begun as early as the fourth grade should be taught by steps from tenths, hundredths and thousandths, which are the only decimals used for one year, to decimals of a lower denomination. Denominate numbers should be taught from the very beginning, the order of instruction being generally from measures most familiar to those that are less so.

The order of teaching numbers of all kinds should be first with objects and afterward without objects, and also first without figures and afterward with figures; the warning being expressed that too much dependence should not be had either by using the objects too long or by employing figures unnecessarily in the solution of problems.

The sequence of steps in algebra and geometry will be indicated later, when their limitations are treated.

4. The time allotted to arithmetic should be given mainly to what may be called the essentials of the subject, or to such work as will be found useful in everyday life. The following topics will indicate the degree of restriction that may be made: (1) Correctness and rapidity in adding, subtracting, multiplying and dividing. (2) Ability to work without the aid of figures in all operations, to 100 in whole numbers, to twelfths in common fractions and to thousandths in decimals. (3) Knowledge and skill in the use of such denominate numbers as are used ordinarily in buying and selling and in keeping accounts. (4) Knowledge of percentage and of the simple applications of percentage, such as are needed in ordinary business affairs. (5) Knowledge of geometrical measurements, so far as to perform problems involved in the ordinary affairs of life. It should be understood that, if more is done than is comprised in the above outline, it should not be at the expense of thor-

oughness in these subjects. It is believed that a large part of this work can be done in the first six grades. During the last two grades one or two lessons a week might be given to the more difficult problems involved.

The geometrical exercises of the grammar school should be limited to work in mensuration carried on in connection with arithmetic, and to exercises of a concrete and experimental kind. The following outline in mensuration, followed in the Springfield, Mass., course, sufficiently indicates the needed limitations of this part of the subject:—

A. Surfaces.—(1) Parts, (*a*) number of sides, (*b*) relative direction of sides (whether parallel, perpendicular, etc.), (*c*) angles. (2) Comparison with other surfaces as to (*a*), (*b*) and (*c*). (3) Length of perimeter or circumference. (4) Area.

B. Solids.—(1) Parts, (*a*) number of faces, (*b*) kinds of faces (plane or curved), (*c*) number of edges, (*d*) relative direction of faces (whether parallel; perpendicular, etc.). (2) Comparison with other solids as to (*a*), (*b*), (*c*) and (*d*). (3) Length of all the edges. (4) Surface area. (5) Volume or solid contents.

The limitations of work prescribed in experimental and constructive geometry should not be too strictly drawn. The better way will be to present an outline from which teachers may select work adapted to the ability of their pupils. Such an outline may include: (1) Definition of volume, surface, line, angle. (2) Definitions of various kinds of lines. (3) Definitions of various kinds of angles. (4) Division of line into any number of equal parts. (5) Construction of angles of various magnitudes. (6) Definitions of various kinds of triangles, parts, etc. (7) Problems relating to angles and sides of triangles. (8) Definitions of quadrilateral and kinds of quadrilaterals. (9) Problems relating to angles and sides of parallelograms. (10) Definitions of pentagon, hexagon, heptagon, etc. (11) Problems relating to the construction of polygons. (12) Problems relating to the division of polygons. (13) Problems relating to the construction of similar polygons. (14) Definitions of circle and parts of circle. (15) Problems relating to diameter, circumference, arc, chord, secant and tangent. (16)

Definitions of various kinds of volumes. (17) Problems in relation to the surfaces of volumes. (18) Problems in relation to the solid contents of volumes.

The problems indicated in the above outline may be either concrete and constructive, or demonstrative, depending upon the ability of a class or of the individual pupils of a class.

If the purpose of algebra in the grammar school is as indicated in a previous paragraph, its limitations might be somewhat as follows: (1) Algebraic notation. (2) Simple arithmetical problems, solved by algebra. (3) Addition, subtraction, multiplication and division. (4) Factoring of simple algebraic quantities. (5) Reduction of fractions. (6) Resolving of equations containing one and two unknown quantities. (7) Practical problems involving the foregoing.

GROUP III. — ELEMENTARY SCIENCE.

1. The immediate end of all the studies of this group is a knowledge of nature, including man and all that is below man. The term nature study in recent years has been made to cover the study of plants, animals and minerals, and the elementary work done in physics and chemistry. This group also includes physiology and hygiene and geography.

While it may be necessary in nature study to lead the pupils to learn through observation the facts of nature, they will learn them not for their own sake, nor mainly for the use they will make of them later in the study of science, but for the habits of observation which the lessons will help to form and for the abiding love of nature which they will help to arouse. These two ends, therefore, — the formation of habits of observation and the arousing of a love for nature, — will determine largely the character and extent of the study. It will include in their appropriate season the observation of minerals, plants and animals, and some of the more apparent physical forces. These observation lessons will fail to produce the desired ends if they stop with a knowledge merely of what is observed. The interpretation of phenomena is of more value than the mere observation of them as facts. The adaptation of parts of animals and plants to the uses they perform will early become an object of inquiry. It should be observed that, while a love for nature

is the primary end of nature study, it cannot be reached by simply talking about the objects observed. Such lessons may drift into mere sentimental reflections of little value. The facts must be learned not by reading or hearing, but by observing, and those facts should be reviewed frequently enough to be readily brought to mind.

The study of physiology and hygiene includes in its scope such knowledge of the anatomy of the body, and the uses of the various parts as will help the pupils to have respect for the body and to keep it in health and strength. The study should be especially helpful in guarding against the dangers of the use of stimulants and narcotics.

Through the study of geography the pupils acquire a knowledge of the earth as the home of man. There are two elements, therefore, of this branch of study; first, nature, in making the earth suitable for human habitation; and, second, the people, in making it a place in which all the activities of life are carried on. So far as possible, the pupils' knowledge of the earth should be interpreting knowledge, or knowledge by which they may understand the relations to human life of its various features, such as climate, surface, soil, etc.

2. The facts acquired in nature study are closely related to the primary facts of geography; indeed, many of the facts of nature study and geography are identical. The subjects of study in these two branches should therefore be arranged in the course with reference to purposes of correlation; and where it is possible the relations should be made to appear, as, for example, the effects of running water as a topic of nature study, and the study of relief forms as a topic of geography.

The relations also of one or both of these branches to arithmetic and history should be indicated. Probably no subjects in the course will be found to be more serviceable for composition and for drawing than these. If these relations are not indicated in the course, opportunity at least should be afforded for abundant practice in expressing in writing or in drawing the facts acquired.

In the lower grades resemblances and differences of the human structure and that of the lower animals should be objects of study, and in the higher grades the connection of

the facts of anatomy and physiology with those of chemistry and physics should be made to appear. In all grades the relation of parts of the body to uses and of uses to health and strength should be shown.

3. The allotment of work in nature study to be done in a given time, whether it be for a year or a day, should be determined by the pupils' natural powers, both of observation and of interpretation. With young children, little is gained by establishing a fixed order of presentation. In general, it may be said that the observations should be made first "in the large" and afterward more minutely; but, if children are interested in the parts of an object very early in their observations, attention should be given to them, especially if the interest centres in the uses of the parts. It is always a safe rule to teach those things which will best serve as interpreters of other things of value for the child to know. On the same principle, a clear and definite knowledge of home surroundings is necessary to a proper knowledge of distant features and conditions. A knowledge by observation of a hill range will be the means of interpreting the distant mountain range described in the book. As far as possible also the logical order should be followed in teaching the various topics. The situation and surface of a continent or country may determine to some extent the climate and rainfall, — a knowledge of which helps the pupils to infer what the productions and the occupations of the people are. In anatomy and physiology, the practice in the best schools of deferring the teaching of the internal structure of the body until the later years of the grammar school seems wise.

4. The two chief ends of nature study should be kept in mind in determining the amount to be done. To form good habits of observation and to acquire a love of nature, there should be no forcing of acquisition. In no study will it be found more necessary to be led by the natural aptitudes and desires of the children than in the study of plants, animals and minerals. While it may be well to set before the teachers a wide field for observation, it should be understood that such selection of the work assigned may be made as will be best suited to given conditions. Again, a broad range of topics will furnish the needed extra and optional work for some pupils already spoken of.

While it is true, as shown in a previous report,* that nearly all the best schools are giving attention to nature study or elementary science, there is a great difference in the amount and kind of work attempted. In some places, largely through the efforts of a superintendent of schools, especially interested in the subject, and a special teacher, the amount of ground covered is ten times that covered in other places. One superintendent reports recently that his schools even in the higher grades do but little more than give the pupils a knowledge of the common flowers and trees. But it should be remembered that the highest ends of the study do not depend upon the number of facts acquired. Here is an additional reason for making the requirements elastic.

GROUP IV. — HISTORY.

1. The place and scope of history as a branch of study have materially changed in recent years. Instead of occupying, as it once did, a small part of the last year or two of the grammar school course, it is now in the best schools begun in the first year and carried on throughout the course; and, instead of being a dry and profitless study of wars and dates, it has come to be regarded as a study both pleasureable and useful as a means of culture. According to this later view of the subject, its purpose from the first should be to inspire the pupils with high ideals of life, both as citizens and as members of society. Moreover, to lead the pupils to acquire a taste for history, the subject should be made interesting from the first. Myths, fairy stories and stories of semicivilized and colonial life should be told to and read by the children in the lower grades, to be continued each year by the reading of stories of biography and of American history in chronological order in the middle grades, and by the study of English and American history in the higher. All phases of social, civil and institutional life are to be presented to the children in forms suited to their interest and capacity. Thus we see that history, which is a record of the growth of a people from their earliest state to the present, includes biography and civil government as well as history proper.

* Preliminary Report, pp. 7, 8.

2. As history teaches all sides of life, it stands in close relation to all the other studies of the school which are supposed to be a preparation for life: to arithmetic, in furnishing material for computations; to science, in showing the analogies of the evolution of the race and that of the individual; to geography, in the use of charts and maps, and in furnishing a basis of comparison whereby the present conditions of social and civil life are better known; to literature, in providing the basis of much of the finest forms of the oration, and the ballad, the drama and the epic; and to drawing and language, in awakening thoughts that deserve the pupils' best efforts of expression.

While most of these relations cannot appear in a course of studies, they must be considered in giving history its proper place. In literature especially should the close relation of history be recognized in the course of studies. There are phases of history that can best be known through literature, as there are forms of literature that can be fully interpreted only by a knowledge of history.

3. While the order of topics will depend somewhat upon the interest and capacity of the pupils, there is now a generally recognized order of presentation which should be embodied in a course. The first year or two may be given to the telling and reading of folk and fairy stories, myths and fables. These should be followed by reading stories of Indian and early settlement life, supplemented by biographical stories. As soon as the pupils are ready for it, and before the consecutive reading and study of American history are begun, attention should be given to interesting facts of local history, such as scenes of celebrated events, early settlers and well-known traditions. Consecutive topical study in connection with the reading of both American and English history should be prescribed for the last years of the course.

4. The limitations of subject-matter in history should be determined largely by the limitations of time and by the demands of other subjects. Not even a minimum of requirements should be prescribed, so far at least as such requirements are made a basis for marking or examinations. In this, as in no other subject, may the amount read and studied be adapted to the abilities of each individual pupil. If the work required to

be done be given out and recited by subjects or topics, each pupil may learn as much of each subject or topic as time and ability will permit. The course therefore should be so arranged as to permit the greatest degree of freedom in teaching the subject. If this is done, and examinations have their proper place, the teachers alone will be responsible if the pupils have not a loving interest in the subject, — not only while they are being taught, but also after they have left school.

GROUP V. — MISCELLANEOUS.

1. In no branch of instruction has there been a greater change of place and scope than in drawing. Twenty-five years ago the number of public schools in which drawing was systematically taught was very small. Now the schools in which it is not taught are as rare to find as were the schools formerly where it was taught. At first the cultivation of the æsthetic sense was considered the only end to be sought, and it was in some way thought to be reached through drawing endless castles and rustic mills from flat copies. Later, the dominant purpose seemed to be to make the subject as practical as possible. This was carried out by the introduction of mechanical drawing, which had little relation to practical mechanics, and which was generally a laborious and tedious process to all concerned. Gradually these two ideas of the purpose of drawing as a branch of study have been supplemented by a third, which is that drawing is educational, and serves to train all the powers of the mind. As such the subject has its strongest claim for a place in the program. With this later idea of the function of drawing have come improved methods of teaching the subject, which serve to accomplish in good ways the ends that were formerly sought, — of æsthetics, by leading the pupils to draw and to use colors in imitation of nature and to appreciate by observation and study the most beautiful works of art; and of practicalness, by drawing free-hand from objects and by connecting closely the mechanical part of the subject with the work of manual training and with the every-day uses of life.

The growth of manual training as a branch of study in the schools has been somewhat like that of drawing. At first it was sought as an accomplishment, afterwards as a trade, now

as a means of mental discipline in furnishing a good foundation for practical life. Its claims to a place in the course of studies are: that (1) it teaches dexterity of hand; (2) it trains to habits of order and neatness; (3) it cultivates a sense of truth and right by demanding exactness of details; (4) it cultivates the will in its requirements of persistence until an object is completed; (5) it serves as a valuable aid to drawing and art studies; (6) it cultivates the ethical sense in enabling pupils to make useful objects; (7) it serves to offset the strain of intellectual work; and (8) it gives respect for manual labor.

The reasons for making singing a regular and systematic subject of instruction are that it affords rest and recreation, is a means of healthy exercise and cultivates the æsthetic, ethical and religious sense. Governed by these ends, the aim and scope of singing as a subject of instruction are clearly (1) to train the ear so as to appreciate and enjoy good music that is felt and (2) to understand and be able to sing at sight any ordinary secular or sacred piece of music.

2. The relation of drawing to manual training is so close that each may be said to be incomplete as a subject of instruction without the other. Both subjects also are closely connected with geometrical measurements. Drawing as a form of expression is closely related to every other subject of study, — to literature in illustrated sketches, to arithmetic in plans and working drawings, and to history and geography in diagrams and maps. In fact, it may be used as other forms of expression are used, and in some cases it may be used profitably when other means fail to express the thought or feeling.

In the lower grades the placing of singing in close relation to the reading and nature exercises and to the morning talk is made very effective. In the lower grades also singing in connection with some of the physical exercises is found beneficial. The use of singing tones has come to be recognized as a valuable means of securing good speaking tones, just as the phonic exercises in spoken tones have been found helpful in developing a good singing tone.

3. Skill in the subjects of this group, as in all technical subjects, will depend upon the fidelity with which the successive steps are taken. Nowhere is a close application of the maxims

“from the known to the related unknown” and “from the simple to the complex” more necessary than in connection with these subjects.

In the early stages of drawing as at present pursued there is a free expression of ideas through illustrative sketching without reference to principles. Attention is then given to form with special reference to correct proportion and outline, succeeded by exercises which give skill in rendering characteristic detail. Finally, there is sought to be secured a full and free expression of grace of form and harmony of color. In the mechanical side of drawing the successive steps are: first, exercises in precision, as paper folding and cutting; second, exercises in accurate measurement; third, accurate drawing of surfaces of given dimensions; fourth, conventional grouping of figures to express solidity; and, fifth, drawing to scale.

So far as the occupations of the kindergarten are educative, they are but the beginning of a series of manual exercises which should have no break throughout the elementary school course. In the earlier stages of the course, paper and cardboard should be extensively used, and always in close connection with drawing, for the purpose mainly of developing manual dexterity. In the later stages exercises to teach the use of tools should be given, and applications of what has been learned should be made in the manufacture of useful objects. In the last two years the course may, if thought desirable, be divided into two departments, — one for wood working and the other for sewing.

In singing, care should be observed that the steps of technique be taken in a natural order, and that the demands upon the children keep pace with their vocal powers and musical appreciation.

4. Within the scope and time already laid down, there need be given no limitations in drawing and manual training beyond what is necessary under a class system of instruction. Here, as in other branches, the minimum of what is expected to be done may be prescribed, together with extra or extended work to suit the circumstances.

Limitations in singing should be made in two directions: first, in respect to the time of learning the language of music; and, second, in respect to reach of tones. The child needs to

acquire a musical sense, — that is, a love for and appreciation of music, — before the language of music is learned. For this reason two or three years of careful practice in simple phonic exercises and rote songs should be spent before sign reading is begun. Such exercises are also needed for a proper development of strength and sweetness of tone. The danger of overstraining young children's voices is avoided by confining the exercises during the first year to the lower tones.

A FOREIGN LANGUAGE.

It will be observed that no reference has been made to a foreign language in the preceding discussion, although that subject was recommended in previous reports.* In my second report I referred to the desirability of making it a part of the elementary course, but of offering it as an elective, “either by making it an extra study or by permitting it to be taken in place of some part of the work in English grammar.” If it is taken as a separate and extra study, of course only those pupils should take it who have time and strength for it in addition to the required work of the school. If the new language is begun in the fifth or sixth year of the course, and if but two recitations a week are given to the study, little extra time need be given to it to acquire a fair degree of facility in reading and some knowledge of the grammar of the language.

The question of what foreign language shall be selected for study in the elementary schools has been discussed by educational leaders. No agreement has been reached, and perhaps none should be expected or desired. The preponderance of practice seems to be in favor of Latin. The arguments in favor of Latin are: (1) the desirability of giving pupils who do not go to the high school an opportunity of acquiring some knowledge of a language from which a large percentage of English words are derived; (2) the advantage of a good start in the study before the high school is reached, so that the increased requirements for entrance to college may be met easily in four years; and (3) the comparative ease of getting good teachers of the subject.

* See Preliminary Report, p. 45, and Second Report, p. 15.

Weighty as the above reasons are for choosing Latin as the foreign language to be offered in the grammar school, they seem to be outweighed by considerations in favor of a modern language, French or German. In the first place, in making the choice there should be primarily regarded the interests of those pupils who are not to continue their studies beyond the grammar school, on account of their limited means of culture. For such pupils a slight knowledge of French or German would be quite as disciplinary as Latin, and far more useful. In four years, with the limited time indicated, — two lessons a week, — a pupil should be able to read easy French or German at sight, and to talk somewhat in the language studied, — acquisitions which would be much more useful in a living than in a dead language. Again, if French is selected, the comparative ease of acquisition should be considered, not merely for the acquisition itself, but for the use that may be made of it in learning Latin. Many teachers advise the study of French two years before Latin is begun, for the help which it gives in the latter study. If French or German is taken as an optional study, there should be no more than two lessons a week, involving comparatively little of outside study. Easy reading should be put into the hands of the pupils after a few weeks of oral lessons. Attention should be confined to reading and talking during the first two years, or grades five and six. During the last two years these exercises should be supplemented by simple grammar lessons and writing, all pointing to the practical ends of correctness and facility in reading and talking.

SUB-PRIMARY CLASS.

Before giving an outline of prescribed work for the sub-primary class, I desire to give the reasons for recommending the formation of such a class, and to explain more fully than I have done the character of the exercises proposed for it.

In the first report of this series the following statements are made with reference to the need of a special class for children under six years of age : —

It is possible that the differences in this country in the earliest age of admission to the elementary schools and in the length of the course of such schools will disappear when the kindergarten becomes uni-

versally a part of the public school system. It may be fairly questioned, however, in any event, whether much of the formal intellectual work now carried on in many first-year primary classes should be demanded of children before the age of six. If, where children are permitted to enter school at five, a sub-primary course could be pursued, consisting largely of manual and observational work, advancement in subsequent work required would be likely to be quite as rapid as it is at present, where pupils are required to read and write much during the first year. In case there is a kindergarten course which children can begin at three or four years of age, the work of this sub-primary class could be supplementary to the work of the kindergarten and preparatory for the more formal work of the primary school. According to many of our best kindergartners and primary school teachers, this connection between the two schools is very much to be desired.*

Again, in a later part of the same report I said : —

In many schools where children are permitted to enter at five, as much is attempted and frequently as much is done in reading, writing and number as is done in schools whose minimum age of admission is six years. That this gain is only an apparent one is obvious to all who are able to compare results at the end of the course. The plan that I would recommend is, that in all places where children are permitted to enter school at five years of age, sub-primary classes be established, whose work shall consist largely of an extension or modification of the manual and observational work of the kindergarten, supplemented by some of the nature work and drawing now pursued in our best primary schools, and by a little reading, writing and number work.

If sub-primary classes are formed for children under six years of age, the nine years' course for children who enter school at five will be reduced to an eight years' primary and grammar school course, thus agreeing in age of admission, grades and age of graduation with our present eight years' course for children who are admitted at six years of age.†

In view of all that has been said by experienced teachers regarding the advisability of supplementing the work of the kindergarten by less formal work than is usually required in a primary school, it would seem unnecessary to plead for the introduction of the proposed class. Every primary school

* Preliminary Report, p. 6.

† Preliminary Report, p. 38.

teacher realizes that the change is very great from the comparatively unrestrained freedom of the kindergarten, with its dozen or fifteen children, to the school where restrictions are made necessary by the large number of children and by the character of the work required. "Connecting classes" between the kindergarten and the primary school have been formed in several places, and they have invariably been found to be of great use in wisely leading the children into good school habits. Frequently the class exercises have been such as to permit pupils to omit a portion of the first-grade primary work.

But, if the sub-primary class is needed for those children who have had the benefits of the kindergarten, much more is such a class needed for children who have not had the advantage of the better training. The change from the home to the school is even greater than that from the kindergarten to the school, and therefore needs the bridge that the proposed class offers. Most people can recall the ordeal through which they passed during the first few weeks of school life. Perhaps the modern school has made the ordeal less trying than it used to be; but we can scarcely realize how great, under the best conditions, the gap is between the freedom of the home and the constraints of the schoolroom, where forty or fifty children have to be controlled by a single teacher.

To those parents who believe in the usefulness of the kindergarten and have not the opportunity to send their children to one, the proposition to establish sub-primary classes ought to be very welcome; for certainly more of the spirit of the kindergarten can be infused where there is large opportunity given for the gifts, occupations and games than in the ordinary primary school, where so much formal work is required. In places where the kindergarten is forbidden through ignorance of its benefits, or where it does not exist through lack of means, the establishment of the proposed grade will not be difficult to bring about. Indeed, in places where the age of admission is five years, it lies wholly in the hands of the school authorities to carry the plan into effect, inasmuch as it would simply take the place of the first-grade primary.

There is another, and, I believe even stronger, argument for the formation of the proposed class; and that is, the claim that

too much formal and too little observational work is now done in the first year of school. Children five years of age can no doubt do a prodigious amount of formal work. They *can* read through a dozen first readers, write a good hand, go to a hundred or a thousand in numbers, and perhaps read music in three keys, — all during the first year. But the question is, Ought they to do it? Ought they to do half or quarter as much? A fair answer to this question will, I am sure, lead us to revise the primary course, as now generally pursued, in the direction of the plan proposed.

The course to be pursued in the sub-primary class will depend somewhat upon the previous training of the children; but in any case the program will consist of an extension of the work of the kindergarten, especially along observational and manual training lines, with a comparatively small amount of reading, writing and arithmetic. The following general outline may suggest the character of the exercises most desired for the proposed class. The grouping and limitations of time are those given in the time program on a previous page of this report.

Groups I. and IV.—(Time spent daily in recitation and busy work for a single group of pupils, about 90 minutes.) Story telling, — selections from kindergarten stories, myths and fairy tales. Reading of words in sentences on blackboard and chart and on picture slips. Reading sentences from blackboard and chart. Phonic drill. Some analysis and synthesis by sounds. Writing on tracing slips, blackboard and paper. Large movements.

Group II.—(Time spent daily, about 15 minutes.) Fourth and fifth kindergarten gifts for counting and combining.

Group III.—(Time spent daily, about 45 minutes.) Recognition of common plants and trees, and their principal parts. Observation of and talks about familiar domestic animals and birds. Some resemblances and differences noted. Adaptation of parts to uses observed.

Group V., —including physical exercises, singing, games, drawing and hand work. (Time spent daily, about 90 minutes.) Construction and design, with tablets, sticks and blocks. Moulding in clay. Painting in color with brush. Paper fold-

ing and parquetry. Free illustrative sketching from memory and imagination. For physical exercises and singing, make selections from kindergarten songs and games.

OUTLINE OF A COURSE OF STUDIES FOR PRIMARY AND GRAMMAR SCHOOLS.

The following outline suggests a possible adjustment of primary and grammar school work to the conditions indicated in this and in previous reports. While it is probably insufficient to meet fully the needs of any system of schools, it is hoped that it will fulfil in some degree the requirements of a general course, upon which more detailed courses may be constructed suited to various localities and conditions. The absence of repeated directions to review previous work and to follow proper lines of teaching indicates the presumption of professional ability on the part of teachers. A course of studies is not a manual of methods and theories of teaching, however important such a statement of methods and theories may be in some places. Happy is it for those schools whose courses of studies may presuppose the employment of teachers whose knowledge of the principles of teaching is undoubted, and whose judgment is fully trusted in the selection of materials within the bounds of an outline not greatly extended.

It should be understood that this course is intended for pupils who enter school at six years of age, and who come either from the kindergarten or sub-primary class. Some pupils who have taken the course outlined for the sub-primary class may be able to take the work outlined for the first grade in less than a year.

The figures in the left-hand column indicate the year and quarter during which the work in parallel columns is supposed to be done. For example, 2³ means the third quarter of the second year. The figures in decimals above each year's outline of work denote the approximate percentage of recitation time which a pupil or a group of pupils should give to the allotted group of subjects. These figures are taken from Table XV of the Second Report.

Grade and Quarter.	Group I. (.42)	Group II. (.12)	Group III (.12)	Group IV. (.10)	Group V. (.24)
1 ¹	<p>(a) Reading. (b) Writing. (c) Composition and Spelling. (d) Memory Work. (e) Grammar.</p>	<p>(a) Arithmetic. (b) Form and Geometrical Exercises. (c) Algebra. (d) Book-keeping.</p>	<p>(a) Nature Study and Elementary Science. (b) Geography. (c) Physiology and Hygiene. (d) Information Reading connected with the Lessons of this Group.</p>	<p>(a) History and Biography. (b) Civil Government.</p>	<p>(a) Drawing and Art. (b) Manual Training. (c) Singing.</p>
	<p>(a) Words in sentences from blackboard. (b) Copying words from blackboard and slips. (c) Telling of stories told by teacher. (d) Learning and reciting of short pieces—minimum average of two lines a day.</p>	<p>(a) Combinations of numbers to ten, using blocks. All oral work. Original stories. Use terms one half and one fourth. (b) Comparison of blocks in size.</p>	<p>(a) Recognition of common plants and trees. Teach principal parts. (b) Uses of plants and their parts to man. (c) Parts of body,—movement, use and care of each part. (d) Suitable stories and selections (see list).</p>	<p>(a) Telling of carefully selected fairy stories, suitable to the capacity of the children and to the season. Select also with reference to what is done in nature study and reading (see list of books and selections).</p>	<p>(a) Free illustrative sketching from memory and imagination. The solar spectrum for color. (b) Paper folding. (c) Breathing and phonic exercises. Rote songs.</p>
1 ²	<p>(a) Sentences from chart or reader. Analysis and synthesis of words by sound. (b) Copying words and sentences from blackboard and slips. Copying single letters. (c) Oral reproduction of stories told or read. Copying words and sentences. (d) Learning and reciting of short pieces.</p>	<p>(a) Combinations of numbers to ten with and without objects. Use of figures in examples. Teach pint, quart. Original stories. (b) Area of surface of inch cube. Length of edges.</p>	<p>(a) Observe flesh-eating animals (dog, cat) for habits and adaptation of parts to habits; pictures of unfamiliar animals for comparison. (b) Uses of animals and their parts to man. Animal productions. (c) Compare parts of body with bodies of animals studied. Compare uses. (d) Suitable selections (see list).</p>	<p>(a) Stories prescribed for first quarter continued.</p>	<p>(a) Study of pictures for story. The six spectrum colors. (b) Paper folding for accuracy. (c) Breathing and phonic exercises continued. Dictation and memory exercises. Tone building on music ladder (not above fifth tone). Rote songs.</p>

1 ³	<p>(a) Sentences from first part of two or more first readers. Analysis and synthesis of words continued.</p> <p>(b) Copying words and sentences continued. Correct forms of single letters taught.</p> <p>(c) Oral reproduction of stories told or read.</p> <p>(d) Learning and reciting of short pieces. Review last half year's work frequently.</p>	<p>(a) Combinations of numbers to twenty with objects. Teach dozen, quart, gallon, pint, gill, fluid, foot, inch. Fractional parts of numbers. Examples and problems. Original problems.</p> <p>(b) Comparison of surfaces of inch cube and other surfaces.</p>	<p>(a) Recognition of common rocks. Buds observed.</p> <p>(b) Uses of rocks to man. Mineral productions.</p> <p>(c) Review and continue previous lessons. Parts of head. Care of teeth, hair, ears, eyes, face.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Stories prescribed for first quarter continued.</p>	<p>(a) Blackboard drawing, free movement. Straight lines and curves. Six standard colors.</p> <p>(b) Drawing lines with ruler from point to point.</p> <p>(c) As in second quarter.</p>
1 ⁴	<p>(a) Reading easier pieces of four or more first readers. Analysis and synthesis of words by sound and by letter.</p> <p>(b) Copying sentences from models and writing from dictation. Writing of single letters continued.</p> <p>(c) Copying sentences continued. Dictation of short sentences. Teach pupils to write their name; school; town; father's (Mr.) name; mother's (Mrs.) name; teacher's name. Period and question mark. Oral and written reproduction of what has been read or told.</p> <p>(d) Learning and reciting of short pieces.</p>	<p>(a) Same as last quarter with and without objects. Review and apply weights and measurements in practical problems.</p> <p>(b) Comparison of length of edges of inch cube with edges of other blocks.</p>	<p>(a) Recognition of common plants and trees. Observe and name qualities as color, size, form, number, surface.</p> <p>(b) Uses of plants and trees and their parts. Vegetable productions.</p> <p>(c) Parts of hands and feet. Uses. Care of nails.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Stories prescribed for first quarter continued.</p>	<p>(a) Drawing from nature simple grasses and flowers, using colored crayons.</p> <p>(b) Cutting to a line with scissors.</p> <p>(c) As in second quarter.</p>

Group I. (.42)	Group II. (.12)	Group III. (.12)	Group IV. (.10)	Group V. (.24)
<p>(a) Selections from several first readers. Analysis and synthesis of words continued.</p> <p>(b) Copying and writing from dictation continued. Teach correct forms of single letters.</p> <p>(c) Oral and written compositions (reproductions, etc.), daily. Common abbreviations. Use of period and interrogation mark. Use of capital at beginning of sentence. Dictation daily for spelling, etc.</p> <p>(d) Memory work reviewed and continued (see list).</p>	<p>(a) Numbers from one to one hundred:—</p> <p>(1) Combinations of tens and of tens with numbers less than ten.</p> <p>(2) All combinations to thirty; no added or subtracted number or multiplier or divisor greater than ten.</p> <p>(3) Application to familiar weights and measures.</p> <p>(4) Fractional parts of numbers.</p> <p>(5) Original problems.</p> <p>(b) Areas of inch cube and of two-inch cube.</p>	<p>(a) Extend observations of first grade in recognizing common plants and trees.</p> <p>(b) Useful vegetable productions. Location of plants observed. Position and direction (general).</p> <p>(c) The skin,—use, care and cleanliness. Use of the senses.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Telling and reading of fairy stories and fables. Select with reference to capacity of children, to the season and to what is done in nature study and reading (see list of books and selections).</p>	<p>(a) Illustrative drawing. Memory and imagination, with help of live objects (birds and animals). Six standard colors.</p> <p>(b) Paper folding and cutting.</p> <p>(c) As in first year.</p>
<p>(a) Difficult portions of several first readers. Phonic drill.</p> <p>(b) Copying and writing from dictation continued. Practice upon forms of single letters if needed.</p> <p>(c) Oral and written compositions continued. Common abbreviations such as used in arithmetic. Dictation for correct forms of words, spelling, etc.</p> <p>(d) Memory work reviewed and continued (see list).</p>	<p>(a) Numbers from one to one hundred:—</p> <p>(1) Combinations of tens and of tens with smaller numbers.</p> <p>(2) All combinations to fifty; no added or subtracted number or multiplier or divisor greater than ten.</p> <p>(3) Application to familiar weights and measures.</p> <p>(4) Fractional parts of numbers.</p> <p>(5) Original problems.</p> <p>(b) Perimeters of inch cube and of two inch cube.</p>	<p>(a) Observe grass-eating animals (cow, horse, sheep) for habits and adaptation of parts to habits. Use pictures of unfamiliar animals of same class for comparison.</p> <p>(b) Useful animal productions. Position, direction, distance. Familiar bodies of land and water.</p> <p>(c) Use of the bones of the body. How injured. Effect of tobacco and alcohol.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Stories prescribed for first quarter continued.</p>	<p>(a) Study of pictures for story. Use of water colors.</p> <p>(b) Paper folding and cutting.</p> <p>(c) As in first year.</p>

<p>(a) Easy portions of several second readers. Daily phonic drill. Easy selections (see list).</p> <p>(b) Copying and writing from dictation with pen and ink. Practice upon single letters if needed.</p> <p>(c) Daily composition and dictation exercises. Teach use of capitals. Review in sentences common difficult words.</p> <p>(d) Memory work reviewed and continued (see list).</p>	<p>(a) Numbers from one to one hundred:—</p> <p>(1) All combinations; no added or subtracted number or multiplier or divisor greater than ten.</p> <p>(2) Application to familiar weights and measures.</p> <p>(3) Fractional parts of numbers.</p> <p>(4) Original problems.</p> <p>(b) Comparison in size of prisms each of whose bases is one inch square.</p>	<p>(a) History of plant life from seed to seed. Observe bean and pea. Plant several kinds of seed for observation and comparison.</p> <p>(b) Plants and parts used for food and clothing. Use of seeds to man. Forms of water. Winds, direction and distance.</p> <p>(c) Simple lessons on eating, drinking, breathing and sleeping. Healthful foods and drinks.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Stories prescribed for first quarter continued.</p> <p>(b) Blackboard drawing: related curves and straight lines. Flat washes of tints.</p> <p>(c) Ruling lines of definite lengths and divisions.</p> <p>(d) As in first year.</p>
<p>(a) Several second readers and selections (see list). Daily phonic drill.</p> <p>(b) Copying and writing from dictation continued. Practice upon forms of single letters if needed.</p> <p>(c) Daily composition and dictation exercises. Ordinary use of capitals, common abbreviations, use of period, interrogation and exclamation marks. Spelling of common words.</p> <p>(d) Memory work reviewed and continued (see list).</p>	<p>(a) Numbers from one to one hundred:—</p> <p>(1) All combinations with and without figures.</p> <p>(2) Application to familiar weights and measures.</p> <p>(3) Fractional parts of numbers.</p> <p>(4) Original problems.</p> <p>(b) Comparison of surfaces of prisms.</p>	<p>(a) Extend observation in recognizing and naming common plants and trees of neighborhood and cultivated plants.</p> <p>(b) Direction and distance applied to familiar bodies of land and water. Productions—animal and vegetable—of the town.</p> <p>(c) Value of sleep. Ventilation. Colds. Draughts. Shape, use and working of muscles. Effects of exercise. Best kinds of exercise. Best time to exercise.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Stories prescribed for first quarter continued.</p> <p>(b) Drawing from nature simple grasses and flowers, using water colors.</p> <p>(c) Cutting to a line with scissors.</p> <p>(d) As in first year.</p>

Group I. (38)	Group II. (15)	Group III. (15)	Group IV. (10)	Group V. (22)
<p>(a) Difficult portions of several second readers and other books of corresponding grade (see list).</p> <p>(b) Copying and writing from dictation continued.</p> <p>(c) Daily composition and dictation exercises. Attention given to abbreviations, spelling, punctuation and use of capitals. Also to correct words and correct forms of words.</p> <p>(d) Memory work reviewed and continued (see list).</p>	<p>(a) Numbers to one thousand.</p> <p>(1) Addition and subtraction with and without objects.</p> <p>(2) Continue applications to familiar weights and measures and use of fractional parts of numbers.</p> <p>(3) Original problems.</p> <p>(b) Comparison of surfaces of cubes and prisms with surface of inch cube.</p>	<p>(a) Extend observation in recognizing and naming common plants and trees grouping according to habitat.</p> <p>(b) Cardinal and semi-cardinal points. Distance continued. Details of hills, plains, valleys.</p> <p>(c) Flesh making and heat giving foods. Salty foods. Wholesome and unwholesome drinks.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Classical myths and stories (see list). (2) Stories of ancient world, Egypt, Assyria, Babylon, Judea. Bible stories (see list of books and selections).</p>	<p>(a) Free drawing of plants and other common objects. Hues of color by means of colored papers.</p> <p>(b) Paper folding and cutting.</p> <p>(c) Breathing, phonic, dictation and memory exercises continued. Tone building on music ladder. All tones of scale. Rote songs.</p>
<p>(a) Books and selections of corresponding grade to third reader (see list).</p> <p>(b) Copying and writing from dictation continued.</p> <p>(c) Daily composition and dictation exercises, giving attention to spelling, punctuation, use of capitals, correct words and correct forms of words.</p> <p>(d) Memory work reviewed and continued (see list).</p>	<p>(a) Numbers to one thousand.</p> <p>(1) Multiplication and division with and without objects.</p> <p>(2) Continue applications to familiar weights and measures and fractional parts of numbers.</p> <p>(3) Original problems.</p> <p>(b) Comparison of perimeter of known surfaces with perimeter of square inch.</p>	<p>(a) Local minerals and rocks for recognition and properties in color, form, hardness. Qualities of air and water.</p> <p>(b) Plans read showing directions and distances of familiar objects. Details of brooks and ponds. Weather record.</p> <p>(c) Simple lessons on digestion and circulation of blood. Effects of tobacco and alcohol.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Stories prescribed for first quarter continued.</p>	<p>(a) Study of pictures for story. Hues of color in washes.</p> <p>(b) Paper folding and cutting.</p> <p>(c) As in first quarter.</p>

<p>(a) Books and selections of corresponding grade to third reader (see list).</p> <p>(b) Copying and writing from dictation.</p> <p>(c) Daily composition and dictation exercises. Attention given to spelling, punctuation, use of capitals, choice of words and forms of words; also to clearness and originality.</p> <p>(d) Memory work reviewed and continued.</p>	<p>(a) Numbers to one thousand.</p> <p>(1) All operations.</p> <p>(2) Applications in common weights and measures.</p> <p>(3) Original problems.</p> <p>(b) Measurements of short and familiar distances and familiar applications.</p>	<p>(a) Study birds for habits and adaptation of parts to habits. Comparative study of feathers. Changing length of day and night and varying temperature.</p> <p>(b) Drawing of plants to scale. Erosion of water. Soil formation. Land and water surface of neighborhood. Weather record.</p> <p>(c) Simple lessons concerning respiration and ventilation. The skin, — sweat tubes and bathing.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Stories prescribed for first quarter continued.</p>	<p>(a) Illustrative drawing. Drawing of animals in ink, silhouette, or color. Harmonious arrangement of one color with black, white or gray.</p> <p>(b) Drawing and cutting figures of definite dimensions.</p> <p>(c) As in first quarter.</p>
<p>(a) Books and selections of corresponding grade to third reader (see list).</p> <p>(b) Copying and writing from dictation.</p> <p>(c) Daily composition and dictation exercises. Attention given to correctness of spelling, punctuation, use of capitals, choice of words and forms of words; also to clearness and originality.</p> <p>(d) Memory work reviewed and continued.</p>	<p>(a) Numbers to one thousand.</p> <p>(1) All operations.</p> <p>(2) Applications in common weights and measures.</p> <p>(3) Original problems.</p> <p>(b) Measurements of familiar surfaces and practical applications.</p>	<p>(a) Changes in plant and animal life in spring. Grouping of plants according to habitat; time of appearance; etc. Life history of corn compared with bean and pea.</p> <p>(b) Surface, soil, climate and productions of town. Plan of neighborhood drawn to scale. Map of town.</p> <p>(c) Care of teeth, eyes, throat, ears, hair, finger nails. Simple lessons on eating, sleeping, exercising, etc.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Stories prescribed for first quarter continued.</p>	<p>(a) Drawing of grasses, leaves and flowers from nature in color. Use of floral elements in borders or surface patterns in color.</p> <p>(b) Cutting units of design.</p> <p>(c) As in first quarter.</p>

	Group I. (.32)	Group II. (.16)	Group III. (.20)	Group IV. (.12)	Group V. (.20)
4 ¹	<p>(a) Literature suited to the interest and capacity of pupils (see list).</p> <p>(b) Instruction to pupils who do not form letters well.</p> <p>(c) Daily composition and dictation exercises giving attention to correctness of spelling, punctuation, use of capitals, choice and forms of words, — also to clearness, conciseness and comprehensiveness of expression</p> <p>(d) Memory work reviewed and continued (see list).</p>	<p>(a) (1) Integers to one million. Addition and subtraction.</p> <p>(2) Fractions: halves, fourths and eighths.</p> <p>(3) Simple business transactions.</p> <p>(4) Common weights and measures.</p> <p>(b) Angles and areas of rectangles</p>	<p>(a) Plant and its parts: parts of leaves and flowers; change of flower to fruit and seed.</p> <p>(b) Lessons on natural divisions of land and water. Map reading of County and State.</p> <p>(c) The bones as a framework and protection; number, names and location.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Stories from the Iliad.</p> <p>(2) Reading of stories connected with pioneer life, especially of the part of country in which the children live.</p>	<p>(a) Freehand drawing in any appropriate medium of plants, fruits and other objects (spherical). Analysis of leaves and flowers for color schemes.</p> <p>(b) Accurate drawings with ruler involving $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, and cutting in cardboard.</p> <p>(c) Breathing, phonic dictation and memory exercises continued. Staff notation, — study of notes, rests, etc., and accent. Rote songs.</p>
4 ²	<p>(a) Literature suited to the interest and capacity of pupils (see list).</p> <p>(b) Instruction to pupils who need it.</p> <p>(c) As in first quarter.</p>	<p>(a) (1) Integers to one million. Multiplication and division.</p> <p>(2) Fractions: thirds, sixths, twelfths.</p> <p>(3) Simple business transactions.</p> <p>(4) Common weights and measures.</p> <p>(b) Areas of parallelograms.</p>	<p>(a) Animals; recognition, habits and adaptation of parts. Cycle of animal life as shown in frog; grouping of known animals.</p> <p>(b) Teach with globe general features of land and water surface; also general facts of climate, productions, people, countries, cities.</p> <p>(c) Composition and structure of the bones.</p>	<p>(a) (1) Stories from the Odyssey.</p> <p>(2) Stories connected with famous persons, Marco Polo, Columbus, Magellan, Balboa, Drake, La Salle, De Soto, Raleigh.</p>	<p>(a) Study of famous painting for centre of interest and emphasis. Tints and shades in water color.</p> <p>(b) Simple constructive design, — card picture frames and the like, of good proportions.</p> <p>(c) As in first quarter.</p>

4 ³	<p>(a) As in first quarter. (b) As in first quarter. (c) As in first quarter. (d) As in first quarter.</p>	<p>(a) (1) Integers unlimited. (2) Fractions to twelfths, decimals, tenths and hundredths. (3) Simple business transactions. (4) Common weights and measures. (b) Areas of triangles.</p>	<p>(a) Teach pebbles, sand and clay with reference to life history of rocks. Observe crystals and show how they may be found. Effect of heat on water and air. (b) North America by topics. Special lessons on climate. (c) Joints, ligaments and cartilages. (d) Suitable selections (see list).</p>	<p>(a) (1) Stories connected with early local history. (2) Stories of famous persons, John Smith, Henry Hudson, Stuyvesant, Myles Standish, Massasoit, Roger Williams, Governor Bradford, King Philip.</p>	<p>(a) Drawings in mass of animals and children in interesting attitudes. Illustrative drawing in other studies. Study of tints and shades of one color in design. (b) Accurate subdivisions of fields for design. (c) As in first quarter.</p>
4 ⁴	<p>(a) As in first quarter. (b) As in first quarter. (c) As in first quarter. (d) As in first quarter.</p>	<p>(a) (1) Integers unlimited. (2) Common fractions to twelfths; decimal fractions to thousandths. (3) Applications in simple business transactions and in common weights and measures. (b) Practical applications in finding areas.</p>	<p>(a) Recognition of plants continued. Changes in nature and their relation to plants, animals and man. Movement and changes in moon. Observe star groups. (b) United States as a whole and in sections, by topics. Teach by topics State and town. (c) Growth and health of the bones. Effects of exercise, rest, posture, clothing, food and alcoholic stimulants. (d) Suitable selections (see list).</p>	<p>(a) (1) Stories connected with early local history. (2) Stories of famous persons, Franklin, Washington, Lafayette, Fulton, Morse, Lincoln, Grant.</p>	<p>(a) Drawings in any appropriate medium of leaves and flowers from nature. Arrangement in spaces. Application in border and surface patterns in color. (b) Cutting of geometric forms in thin wood. (c) As in first quarter. Two part exercises and songs.</p>

Group I. (.32)	Group II. (.16)	Group III. (.20)	Group IV. (.12)	Group V. (.20)
<p>(a) As in fourth grade.</p> <p>(b) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p>	<p>(a) (1) Addition and subtraction of common fractions.</p> <p>(2) Applications with common weights and measures.</p> <p>(b) Kinds of polygons.</p>	<p>(a) Plants and parts continued, emphasizing roots and stems. Form, leaves and bark of trees; grouping of plants.</p> <p>(b) The countries of North America, other than the United States, by topics. Special lessons on mountain ranges and slopes.</p> <p>(c) The structure, kinds, action and uses of the muscles.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Consecutive reading relating to explorations and discoveries in North America.</p> <p>(2) Stories relating to Indian life in North America.</p>	<p>(a) Freehand drawing in any medium of plants, fruits and simple spherical and cylindrical objects. Analysis of leaves and flowers for color schemes.</p> <p>(b) Accurate drawings of polygons with compasses and ruler.</p> <p>(c) Previous work continued. Exercises in key of C, G and F.</p>
<p>(a) As in fourth grade.</p> <p>(b) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p>	<p>(a) (1) Multiplication and division of common fractions.</p> <p>(2) Applications with common weights and measures.</p> <p>(b) Areas of polygons.</p>	<p>(a) Study of rock forming minerals, quartz, mica, feldspar, etc. Building stones. Motion and pressure in solids, water and air.</p> <p>(b) Continent of South America by topics. Special lessons on drainage.</p> <p>(c) Development of the muscles. Effects of exercise, rest, narcotics and alcoholic stimulants.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Consecutive reading relating to explorations and discoveries in South America.</p> <p>(2) Stories connected with life of the Aztecs and Incas.</p>	<p>(a) Study of famous paintings for centre of interest and emphasis. Subordination accessories. Hues in water color.</p> <p>(b) Modifications of polygons for objects of beautiful line, silk reel, badge, etc. Construction in appropriate material.</p> <p>(c) As in first quarter.</p>

<p>(a) As in fourth grade. (b) As in fourth grade. (c) As in fourth grade. (d) As in fourth grade.</p>	<p>(a) (1) Decimal fractions: all operations unlimited. (2) Applications in business transactions. (b) Areas of surfaces of cube and prism.</p>	<p>(a) Minerals continued. Continue study of changes in heat on water and air. Apply to phenomena of seasons. Changes in position of sun. (b) Continent of Europe topically. Special lessons on soil. (c) Structure of the skin, hair and nails; the perspiratory and sebaceous glands. (d) Suitable selections (see list).</p>	<p>(a) (1) Consecutive reading of history relating to the early colonies of North America. (2) Stories connected with the early history of continental Europe.</p>	<p>(a) Drawings in mass of animals and children in interesting attitudes. Illustrative drawing in other studies. Study of analogous coloring; related hues in design. (b) Accurate subdivision of fields of designs into polygons. (c) As in first quarter.</p>
<p>(a) As in fourth grade. (b) As in fourth grade. (c) As in fourth grade. (d) As in fourth grade.</p>	<p>(a) (1) Decimal fractions: all operations unlimited. (2) Applications in denominate numbers and business transactions. (b) Area of surface of square pyramid.</p>	<p>(a) Insects: study of one for type of insect life,—grasshopper or butterfly; adaptation of parts to habits; metamorphosis. Relation of known insects to man as useful or injurious. (b) British Isles and dependencies. Special lessons on climate and productions. (c) Functions of the skin and their relation to the health of the body. Effects of bathing and clothing, stimulants and narcotics. (d) Suitable selections (see list).</p>	<p>(a) (1) Consecutive reading of history relating to the Indian wars in North America. (2) Stories connected with the early history of England.</p>	<p>(a) Drawings of plants and insects from nature in any appropriate medium. Arrangement in spaces, applications in borders, surface patterns and rosettes in color. (b) Development of surface of pyramids in cardboard. Applications in thin wood. (c) As in first quarter.</p>

	Group I. (.32)	Group II. (.16)	Group III. (.20)	Group IV. (.12)	Group V. (.20)
6 ¹	<p>(a) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p>	<p>(a) (1) Metric system of weights and measures.</p> <p>(2) Percentage and simple applications.</p> <p>(b) Solid contents of cube and of square prism.</p>	<p>(a) Study of trees continued. Fruit and dispersion of seeds. Grouping of plants continued.</p> <p>(b) Review United States. Teach Russia, Germany and France, by topics. Special lessons on motions of the earth and their effects.</p> <p>(c) The bones, muscles and skin, — structure and function.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Consecutive reading of history relating to the Revolutionary war and events which led to it.</p> <p>(2) Stories connected with the history of Russia, Germany and France.</p>	<p>(a) Drawing in any medium of plants and common objects. Analysis of leaves and flowers for color schemes.</p> <p>(b) Working drawings of simple rectangular objects.</p> <p>(c) Previous exercises continued. Work in chromatic intervals. Exercises in key of D and B flat.</p>
6 ²	<p>(a) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p>	<p>(a) (1) Practical problems in metric system and denominate numbers.</p> <p>(2) Simple applications of percentage.</p> <p>(b) Solid contents of rectangular prism.</p>	<p>(a) Study of common metals and their ores — iron, copper, etc. Grouping of birds as to habits, — perchers, scratchers, swimmers.</p> <p>(b) Review state, county and town. Teach countries of Europe not before taught. Special lessons on latitude and longitude.</p> <p>(c) The growth, waste and renewal of the body. The organs and processes of digestion.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Consecutive reading of United States history relating to the period between 1783-1815.</p> <p>(2) Stories connected with the history of Spain, Greece and Italy.</p>	<p>(a) Study of famous paintings for centre of interest and emphasis, grouping of accessories for leading lines.</p> <p>(b) Design and manufacture of simple objects in paper, card or wood; pin box, candy box, etc.</p> <p>(c) As in first quarter.</p>

<p>(a) As in fourth grade. (c) As in fourth grade. (d) As in fourth grade.</p>	<p>(a) (1) Practical problems in metric system and denominate numbers. (2) Simple applications of percentage. (b) Measurements of circle.</p>	<p>(a) Study the combined effects of heat and gravity on water and air. Grouping of birds continued. Compare parts with corresponding parts of vertebrates. (b) Continent of Asia, Japan, China, Philippine Islands. Special lessons on winds and ocean currents. (c) The composition and uses of the blood. The organs of circulation and their functions. (d) Suitable selections (see list).</p>	<p>(a) (1) Consecutive reading of United States history during the period from 1815 to 1890. (2) Stories connected with Japanese, Chinese and Philippine Islands.</p>	<p>(a) Drawings in mass of animals and children in interesting attitudes. Illustrative drawing in other studies. Study of analogous coloring, related lines, in design. (b) Accurate geometric basis for designs. (c) As in first quarter.</p>
<p>(a) As in fourth grade. (c) As in fourth grade. (d) As in fourth grade.</p>	<p>(a) (1) Practical problems in denominate numbers. (2) Business transactions and accounts. (b) Area of surfaces of prisms and cylinders.</p>	<p>(a) Study absorption, transfer and radiation of heat by solids and liquids. Clusters of flowers in maple, elm, horse chestnut, oaks, birches, tree fruits. (b) Continent of Africa, Australasia. Special lessons on climate and rainfall. (c) The relation of the blood to health. Effects of narcotics and alcoholic stimulants upon organs and processes of digestion and circulation. (d) Suitable selections (see list).</p>	<p>(a) (1) Consecutive reading of United States history during and since the civil war. (2) Stories connected with colonizations in Africa and the Islands of Australasia.</p>	<p>(a) Plant forms in appropriate medium. Arrangements in spaces of different shapes. Applications in borders, surfaces, rosettes, etc., in color. (b) Development of surface of prism and cylinders in card board. Applications in appropriate material. (c) As in first quarter.</p>

Group I. (.33)	Group II. (.16)	Group III. (.16)	Group IV. (.15)	Group V. (.20)
<p>(a) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p> <p>(e) The sentence. Kinds of sentences. Subject and predicate.</p>	<p>(a) Insurance, commission, profit and loss, taxes.</p> <p>(b) Measurements and problems relating to angles.</p>	<p>(a) Study composite family, or grasses and grains.</p> <p>(b) General review of North America: United States, West Indies, South America. Special lessons in mathematical geography.</p> <p>(c) The composition and purity of air. Organs of respiration and their functions.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Topical study: Ancient America; Northmen; voyages and discoveries of Columbus, the Cabots and Vesputius.</p> <p>(2) Reading from early History of England.</p> <p>(b) Local town and county governments. Officials: by whom chosen; duties, etc.</p>	<p>(a) Drawings in any medium of plants and common objects. Illustrative drawing in other studies. Analysis of beautifully colored natural objects for color schemes.</p> <p>(b) Working drawings of common objects to scale.</p> <p>(c) Previous work continued. Exercises and songs in all keys.</p>
<p>(a) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p> <p>(e) Parts of speech. Phrases and clauses.</p>	<p>(a) Duties, interest.</p> <p>(b) Areas of surfaces of pyramid and cone.</p>	<p>(a) Study of coal series. Combustion: study of candle flame products.</p> <p>(b) General review of countries of Europe. Special lessons on commerce.</p> <p>(c) Structure of the lungs. Effects of respiration upon the air and blood. How heat of body is generated.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Topical study: Colonization of North America by Spaniards and French, with review.</p> <p>(2) Reading from History of Spain and France.</p> <p>(b) State government. Branches: function of each; officials, — by whom chosen; terms; duties.</p>	<p>(a) Study of famous paintings for composition of line and of light and shade or mass.</p> <p>(b) Design and manufacture of simple objects in paper, card or wood, — match safe, tooth pick holder, bracket, etc.</p> <p>(c) As in first quarter.</p>

<p>(a) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p> <p>(e) Nouns and pronouns, — kinds and forms. Rules of syntax. Analysis of sentences.</p>	<p>(a) Banking: stocks and bonds.</p> <p>(b) Solid contents of cylinder, pyramid and cone.</p>	<p>(a) Study typical marine animals,—starfish, oyster or clam, lobster or crab. Compare with vertebrates (fish). Composition of air, water and various foods.</p> <p>(b) General review of Asia and Africa. Special lessons upon colonies and colonization.</p> <p>(c) The relation of respiration to health with special reference to ventilation, disinfectants, exercise and clothing.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Topical study of colonization in America by English.</p> <p>(2) Reading from history of England to 1760.</p> <p>(b) Topical study of state government continued.</p>	<p>(a) Drawings in any medium of children in interesting attitudes, and of details of interior of room. Free-hand perspective. Story of Christian architecture and ornament.</p> <p>(b) Use of common tools,—try-square, gauge, etc.</p> <p>(c) As in first quarter.</p>
<p>(a) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p> <p>(e) Verbs,—kinds and form. Rules of syntax. Analysis of sentences.</p>	<p>(a) (1) Business transactions and accounts.</p> <p>(2) Ratio and proportion.</p> <p>(b) Solid contents of frustum of pyramid and cone, and of sphere.</p>	<p>(a) Study rose family. Some principles of acoustics.</p> <p>(b) General review of Australasia. Special lessons upon productions and government.</p> <p>(c) The vocal organs and their functions. Effects of stimulants and narcotics.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Topical study of United States history, from 1763 to 1783.</p> <p>(2) Reading English history to 1785.</p> <p>(b) Topical study of United States government. Branches: function of each; officials,—qualifications, etc.</p>	<p>(a) Adaptation of natural forms to purposes of decorative design. Applications to initials, head and tail pieces, etc., in black and white and color. Complementary colors in design.</p> <p>(b) Working of wood in three dimensions.</p> <p>(c) As in first quarter.</p>

Group I. (.33)	Group II. (.20)	Group III. (.12)	Group IV. (.15)	Group V. (.20)
<p>(a) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p> <p>(e) Kinds, forms and uses of adjectives, adverbs, prepositions and conjunctions. Analysis of sentences.</p>	<p>(a) Definitions, rules and formulas. Miscellaneous exercises.</p> <p>(b) Definitions, problems and theorems relating to angles and lines.</p> <p>(c) Algebraic notation and simple problems. Addition and subtraction.</p>	<p>(a) Poisonous plants and trees.</p> <p>(b) Comparative study of climate and climatic influences.</p> <p>(c) The nervous system. Organs and functions.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Topical study of United States history from 1783 to 1815.</p> <p>(2) Reading of English history to 1815; also of French Revolution.</p> <p>(b) Topical study of United States government continued. Election and appointment of officials. Terms of office. Duties. Civil service.</p>	<p>(a) Drawings in any medium of common objects. Illustrative drawings in other studies. Analysis of beautifully colored natural objects for color schemes.</p> <p>(b) Working drawings of common objects to scale.</p> <p>(c) Previous work continued. Three part exercises and songs. Introduction of minor scales.</p>
<p>(a) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p> <p>(e) Rules of syntax and applications. Analysis of sentences.</p>	<p>(a) Definitions, rules and formulas. Miscellaneous exercises.</p> <p>(b) Definitions, problems and theorems relating to angles, sides and areas of triangles and parallelograms.</p> <p>(c) Multiplication and division. Factoring.</p>	<p>(a) Lessons on cohesion gravity and heat.</p> <p>(b) Comparative study of vegetation in different latitudes.</p> <p>(c) Relation of the nervous system to health, with reference to exercise, various kinds of work, rest, food and drink.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) (1) Topical study of United States history from 1815 to present time.</p> <p>(2) Reading of English history to present time.</p> <p>(b) Principles of local government. Basis. Duties of citizens. Local questions discussed.</p>	<p>(a) Study of famous paintings for composition of line and of mass.</p> <p>(b) Design and manufacture of simple objects in appropriate material. Scutcheon, hinges, vases, bowls, etc.</p> <p>(c) As in first quarter.</p>

83	<p>(a) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p> <p>(e) Rules of syntax and applications. Analysis of sentences.</p>	<p>(a) Definitions, rules and formulas. Miscellaneous exercises.</p> <p>(b) Definitions, problems and theorems relating to similar polygons and circles.</p> <p>(c) Reduction of fractions. Resolving of equations with two unknown quantities.</p> <p>(d) Simple form of accounts.</p>	<p>(a) Lessons on light, sound and electricity.</p> <p>(b) Comparative study of winds and their effects.</p> <p>(c) Organs of the special senses; care and training.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Topical general reviews: such as American Indians; negro slavery; taxation; political parties; inventions; growth of territory; causes and results of wars in which United States was a party. Questions connected with current events.</p> <p>(b) Principles of state government: basis; object of laws; relation of each branch to each other; duties of citizens and of officials; state questions discussed.</p>	<p>(a) Drawings in any medium of children in interesting attitudes, and of details of interiors of buildings. Freehand perspective. Story of pre-Christian architecture and ornament.</p> <p>(b) Making of simple joints.</p> <p>(c) As in first quarter.</p>
84	<p>(a) As in fourth grade.</p> <p>(c) As in fourth grade.</p> <p>(d) As in fourth grade.</p> <p>(e) Rules of syntax and applications. Analysis of sentences.</p>	<p>(a) Definitions, rules and formulas. Miscellaneous exercises.</p> <p>(b) Definitions, problems and theorems relating to prisms, pyramids, spheres, cylinders and cones.</p> <p>(c) Involution and evolution.</p> <p>(d) Simple form of accounts.</p>	<p>(a) Injurious insects; time and method of extermination.</p> <p>(b) Comparative study of states of society.</p> <p>(c) The effects of the use of narcotics upon respiration, nervous system and mental activity.</p> <p>(d) Suitable selections (see list).</p>	<p>(a) Topical general reviews continued: the tariff; growth of industries; territorial expansion; civil service reform; steam; electricity. Questions connected with current events.</p> <p>(b) Principles of national government: the constitution; national questions; rights and duties of nations; war and arbitration.</p>	<p>(a) Adaptation of natural forms to purposes of decorative design. Applications in book covers, title pages etc. Complementary groups of colors in design.</p> <p>(b) Making of simple objects involving joints.</p> <p>(c) As in first quarter.</p>

A LIST OF BOOKS AND SELECTIONS.

Following are the lists of books and selections to which reference has been made in the foregoing course of studies. It is difficult to draw the line between books of literature and books of information. Some of the books classed as literature may not properly belong there by a strict definition of that term, and some belonging under both heads are for the sake of brevity placed under only one. The selections are intended for reading and memorizing by the pupils. Some of them may be used by teachers of the lower grades for reading to the children. The list is far from complete, and should be added to by the teachers as good selections are found.

Books of Literature (Grades I., II. and III.).

Æsop's Fables.
 Alice's Adventures in Wonderland (Dodgson).
 Bible Stories, 2 vols. (Modern Readers' Bible Series).
 Child Life in Verse (Whittier).
 Children's Garlands (Patmore).
 Child's Garden of Verse (Stephenson).
 Christmas All the Year Round (Howells).
 Dream Children (Scudder).
 Fables and Folk Stories (Scudder).
 Fairy Tales (Andersen).
 Fairy Tales (Grimm).
 In the Child's World (Poulsen).
 Jungle Book (Kipling).
 Kindergarten Stories (Wiltse).

Nature in Verse (Lovejoy).
 Nature Myths (Cooke).
 Old Greek Stories (Baldwin).
 Old Stories of the East (Baldwin).
 Old Testament Stories (Houghton).
 Open Sesame, No. 1.
 Poems for Children (Ewing).
 Poetry for Children (Eliot).
 Poetry for Children (Lamb).
 Poetry of the Seasons (Lovejoy).
 Rainbows for Children (Child).
 Stories for Children (Wiggin).
 Stories for Children (Lane).
 Stories of King Arthur (Hanson).
 Sunshine Land (Thomas).

Selections of Literature for Reading and Memorizing (Grades I., II. and III.).

Calling the Violets (Larcom).
 Christmas Bells (Longfellow).
 Daffodils (Wordsworth).
 Hiawatha's Childhood (Longfellow).
 Lady Bird (Southery).
 Lady Moon (Lord Houghton).
 Little Dandelion (Bostwick).
 Little Kitty (Prentiss).
 Little Things (Anonymous).
 Mountain and the Squirrel (Emerson).
 New Year's Eve (Andersen).
 One by One (Procter).
 Rain in Summer (Longfellow).
 Seven Times One (Ingelow).
 Spring (Thaxter).

Stop, Stop Pretty Water (Follen).
 Sweet and Low (Tennyson).
 Thanksgiving Day (Child).
 The Baby (MacDonald).
 The Bee and the Flower (Tennyson).
 The Brook (Tennyson).
 The Brown Thrush (Larcom).
 The First Snowfall (Lowell).
 The Night Before Christmas (Moore).
 The Spider and the Fly (Howitt).
 The Frost Spirit (Whittier).
 The World (Lilliput Levee).
 The Lamb (Blake).
 We are Seven (Wordsworth).
 Who Stole the Bird's Nest? (Child.)

Books of Information (Grades I., II. and III.).

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| All the Year Round, 4 vols. (Strong). | My Saturday Bird Class (Miller). |
| American Life and Adventure (Eggleston). | Nature Stories (Bass). |
| Aunt Martha's Corner Cupboard (Kirby). | Nature's Byways (Ford). |
| Brooks and Brook Basins (Frye). | Queer Little People (Stowe). |
| Child's Book of Nature, Vol. 1 (Hooker). | Rab and His Friends (Brown). |
| Friends in Feathers and Fur (Johannot). | Seed Babies (Morley). |
| Grandfather's Stories (Johannot). | Stories for Children (Hale). |
| Historic Boys and Girls (Brooks). | Stories of Animal Life (Bass). |
| Learning About Common Things (Abbott). | Stories of Plant Life (Lane). |
| Little Folks in Feathers, etc. (Miller). | Stories of Colonial Children (Pratt). |
| Little Folks of Other Lands (Chaplin). | Stories of Massachusetts (Hale). |
| Madam How and Lady Why (Kingsley). | Stories Mother Nature Told (Andrews). |

Books of Literature (Grades IV., V. and VI.).

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| Among the Hills (Whittier). | Old Greek Stories (Baldwin). |
| Ballads of New England (Whittier). | Old Stories of the East (Baldwin). |
| Bible Stories (Modern Readers' Bible Series). | Open Sesame, No. 2. |
| Cricket on the Hearth (Dickens). | Popular Tales from the Norse (Dasent). |
| Gods and Heroes (Francillon). | Rab and His Friends (Brown). |
| Grandfather's Chair (Hawthorne). | Robinson Crusoe (Defoe). |
| Gulliver's Travels (Swift). | Six Tales from Arabian Nights (Eliot). |
| Hiawatha (Longfellow). | Stories of the Iliad and Odyssey (Church). |
| King of the Golden River (Ruskin). | Swiss Family Robinson (Wyss). |
| Little Daffydowndilly (Hawthorne). | Tanglewood Tales (Hawthorne). |
| Little Lord Fauntleroy (Burnett). | Tent on the Beach (Whittier). |
| Merry Adventures of Robin Hood (Pyle). | The Birds' Christmas Carol (Wiggin). |
| New England Legends, etc. (Drake). | Water Babies (Kingsley). |
| | Wonder-Book (Hawthorne). |

Selections of Literature for Reading and Memorizing (Grades IV., V. and VI.).

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| Abou Ben Adhem (Hunt). | Marjorie's Almanac (Aldrich). |
| A Child's Thought of God (Mrs. Brown-ing). | My Playmate (Whittier). |
| All Things Beautiful (Alexander). | Paul Revere's Ride (Longfellow). |
| Barbara Frietchie (Whittier). | Pegasus in Pond (Longfellow). |
| Barefoot Boy (Whittier). | Queer Little People (Stowe). |
| Belle of Atri (Longfellow). | Robert of Lincoln (Bryant). |
| Building of the Ship (Longfellow). | Sheridan's Ride (Read). |
| Cassabianca (Hemans). | Snowflakes (Longfellow). |
| Children (Longfellow). | Spring Has Come (Holmes). |
| Christmas Carmen (Whittier). | Story Hour (Wiggin). |
| Daybreak (Longfellow). | The Arrow and the Song (Longfellow). |
| Do All that You Can (Sangster). | The Brook and the Wave (Longfellow). |
| Flower in the Crannied Wall (Tennyson). | The Battle of Blenheim (Southey). |
| From My Arm Chair (Longfellow). | The Birds' Christmas Carol (Wiggin). |
| Grandmother's Story (Holmes). | The Building of the Ship (Longfellow). |
| Gulliver's Travels (Swift). | The Little People of the Snow (Bryant). |
| Hiawatha's Friends (Longfellow). | The Gladness of Nature (Bryant). |
| Hiawatha's Sailing (Longfellow). | The Rainy Day (Longfellow). |
| How the Leaves Came Down (Coolidge). | The Sandpiper (Thaxter). |
| In School Days (Whittier). | The Bugle Song (Tennyson). |
| Landing of the Pilgrims (Hemans). | The Village Blacksmith (Longfellow). |
| Leak in the Dike (Cary). | The White-footed Deer (Bryant). |
| March (Larcom). | The Yellow Violet (Bryant). |
| | Wreck of the Hesperus (Longfellow). |

Books of Information (Grades IV., V. and VI.).

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| <p>A-Hunting of the Deer (Warner).
 A Man Without a Country (Hale).
 Around the Hub (Drake).
 Birds and Bees (Burroughs).
 Biographical Sketches (Hawthorne).
 Black Beauty (Sewell).
 Boys of '76 (Coffin).
 Boys of '61 (Coffin).
 Building the Nation (Coffin).
 Cast Away in the Cold (Hayes).
 Children of the Cold (Schwatka).
 Child's Book of Nature, Vol. 2 (Hooker).
 Claws and Hoofs (Johonnot).
 Curious Homes, etc. (Beard).
 Each and All (Andrews).
 Fairyland of Flowers (Pratt).
 Fairyland of Science (Buckley).
 Five Little Peppers (Sidney).
 Geographical Reader (Scribner).
 Geographical Readers (Phillips).
 Geographical Readers (King).
 Hans Brinker and Silver Skates (Dodge).
 Historical Readers (Gilman).</p> | <p>Indian History for Young Folks (Drake).
 In Brooks and Bayou (Bayliss).
 Old Times in the Colonies (Coffin).
 Our Fatherland (Carver and Pratt).
 Pilgrims and Puritans (Moore).
 Seven Little Sisters (Andrews).
 Sharp Eyes (Burroughs).
 Stories of American History (Pratt).
 Stories of Great Americans (Eggleston).
 Stories of Greece (Guerber).
 Stories of Our Country (Johonnot).
 Stories of the Old World (Church).
 Stories of the Romans (Guerber).
 Ten Boys who lived on the Road from
 Long Ago till Now (Andrews).
 Ten Great Events in History (Johonnot).
 The Boy's Froissart (Lanier).
 The Boy's King Arthur (Lanier).
 The Children's Crusade (Gray).
 The Story of the Birds (Baskett).
 True Stories from New England History
 (Hawthorne).
 Our Own Birds (Bailey).</p> |
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Books of Literature (Grades VII. and VIII.).

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| <p>Ben Hur (Wallace).
 Bunker Hill Orations (Webster).
 Cape Cod (Thoreau).
 Character (Smiles).
 Christmas Carol (Dickens).
 Courtship of Miles Standish (Longfellow).
 Enoch Arden (Tennyson).
 Evangeline (Longfellow).
 Feats of the Fjord (Martineau).
 Greek Heroes (Kingsley).
 Idylls of the King (Tennyson).
 Ivanhoe (Scott).
 Jason's Quest (Lowell).
 Julius Cæsar (Shakespeare).
 Kenilworth (Scott).
 Lady of the Lake (Scott).
 Legends of New England (Hawthorne).
 Magna Charta Stories (Gilman).</p> | <p>Marmion (Scott).
 Merchant of Venice (Shakespeare).
 My Hunt after the Captain (Holmes).
 Patriotic Reader (Carrington).
 Peasant and Prince (Martineau).
 Pilgrims Progress (Bunyan).
 Selections from the Alhambra (Irving).
 Selections from Ruskin.
 Self Help (Smiles).
 Snow Bound (Whittier).
 Tales from Shakespeare (Lamb).
 Tales of a Wayside Inn (Longfellow).
 Tales of the White Hills (Hawthorne).
 The Talisman (Scott).
 Tom Brown at Rugby (Hughes).
 Uncle Tom's Cabin (Stowe).
 Vicar of Wakefield (Goldsmith).
 Vision of Sir Launfal (Lowell).</p> |
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Selections of Literature (Grades VII. and VIII.).

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| <p>Address at Gettysburg (Lincoln).
 Among the Hills (Whittier).
 An Invitation to the Country (Bryant).
 Belfry of Bruges (Longfellow).
 Bells of San Blas (Longfellow).
 Charge of the Light Brigade (Tennyson).
 Concord Hymn (Emerson).</p> | <p>Christmas Carol (Dickens).
 Chambered Nautilus (Holmes).
 Duty (Emerson).
 Excelsior (Longfellow).
 Freedom (Lowell).
 Good Cheer (Brontë).
 Gradation (Holland).</p> |
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Selections of Literature (Grades VII. and VIII.) — Concluded.

Herve Riel (Browning).
 Horatius (Macaulay).
 How they Brought the Good News (Brown-
 ing).
 I wandered lonely as a Cloud (Words-
 worth).
 King Robert of Sicily (Longfellow).
 Ladder of St. Augustine (Longfellow).
 March (Larcom).
 Marco Bozzaris (Halleck).
 Nobility (Carey).
 Old Ironsides (Holmes).
 Pied Piper of Hamelin (Browning).
 Psalm of Life (Longfellow).
 Rhœcus (Lowell).
 The Gladness of Nature (Bryant).
 The Forest Spirit (Whittier).
 The Corn Song (Whittier).
 The Arsenal at Springfield (Longfellow).
 The Day is Done (Longfellow).

The New and the Old (Bryant).
 The Builders (Longfellow).
 The Battlefield (Bryant).
 The Boy of Ratisbon (Browning).
 The Pumpkin (Whittier).
 The Sea (Procter).
 The Witch's Daughter (Whittier).
 The Snow Storm (Emerson).
 The Rivulet (Bryant).
 Three Bells (Whittier).
 The New and the Old (Bryant).
 To a Water Fowl (Bryant).
 To-day (Carlyle).
 To the Rhodora (Emerson).
 To a Cloud (Bryant).
 To the Fringed Gentian (Bryant).
 The Vision of Sir Launfal (Lowell).
 Washington's Character (Everett).
 Wind and Stream (Bryant).
 Winter (Tennyson).

Books of Information (Grades VII. and VIII.).

American Boys' Handy Book (Beard)
 American Girls' Handy Book (Beard).
 American Explorers (Higginson).
 Among the Law Makers (Alton).
 Autobiography (Franklin).
 Boy Travellers (Knox).
 Building of the Nation (Coffin).
 Bulfinch's Age of Chivalry (Hale).
 Bulfinch's Age of Fable (Hale).
 Child's Book of Nature, Vol. 3 (Hooker).
 Child's History of England (Dickens).
 English History for Beginners (Higgin-
 son).
 Ethics of Success (Thayer).

Fifteen Decisive Battles of the World
 (Creasey).
 Life of Washington (Fiske-Irving).
 Life of Washington (Brooks).
 Marco Polo (Towle).
 Plutarch's Lives (Ginn).
 Story of our Continent (Shaler).
 Stories of the War (Hale).
 Stories from English History (Harpers).
 Ten Great Events in History (Johannot).
 The American Citizen (Dole).
 The Making of New England (Drake).
 Washington and his Country (Irving).
 Zig-Zag Journeys (Butterworth).

G.

THE CONSOLIDATION OF SCHOOLS
AND THE
CONVEYANCE OF CHILDREN.

BY G. T. FLETCHER,
Agent of the Massachusetts Board of Education.

CONSOLIDATION OF SCHOOLS AND CONVEYANCE OF CHILDREN.

District Schools Fifty Years Ago.—The question of the consolidation of schools has for many years received the attention of educators. Conditions pertaining to changes in the population and the wealth of communities as well as the increasing educational demands of the times have rendered necessary a certain centralization of forces for economy and efficiency in school work. Fifty years ago a large percentage of the people of Massachusetts belonged to the “original stock,” and lived in country towns. District schools were numerous and large. Seldom did a school register less than twenty-five pupils; not infrequently seventy-five were enrolled during the winter term, ranging in age from four years to twenty-one. An attendance of forty or fifty pupils was a common occurrence. Many of the schools were taught in winter by college students, — often the brightest young men from the rural communities, whose example was a stimulus to the boys of the district to get an education. In the summer, the teacher was often a young woman from the country academy, whose scholarship and character were an inspiration to the children. The district school was a centre of interest and influence in the rural community. The range of studies was narrow, but the few branches then taught are regarded to-day as fundamental in a broader system of education. The independent thinking and the individual doing of pupils, whose age gave maturity to mind, were educating. The school was a “consolidation” of numbers and ability sufficient for the educational needs of the times. Similar conditions exist in a few country towns now, and such schools may well be nurtured by town and State in the place of their native growth. A home life of frugality,

simplicity and industry is a potent factor in the upbuilding of body and mind. But there were many poor schools then, as there are now.

Changes that have come to the District Schools.— Within the last fifty years great changes have been wrought in social life and conditions. The increase of population and wealth in centres of commerce and manufacturing is both a cause and a result of an exodus of the farming population to the cities and large towns.

In many rural communities farms were abandoned, or only the “old folks” left at home, to pass there the remnant of their days, while the farm constantly depreciated in value. The young, vigorous element of the population left home to work in store or factory. Families remaining in the “hill towns,” or coming to them, had few children; and, as a result, the schools became small, the local interest in them often decreasing in the same ratio. These changes came in different degrees of severity to different towns. Those most favorably situated for farming purposes “held their own,” to quite an extent, in adult population and wealth; but the number of children constantly lessened, and the schools, though not generally reduced in number, were reduced greatly in attendance. Occasionally schools were united, to increase the number of pupils, or a winter term was held at the centre of the town for the older pupils of all the districts. Just when and where consolidation on a small scale began we cannot tell. The cause and the fact of a beginning are both evident. There came to the people, slowly at first, a realization that the interest, economy and efficiency that had in many cases characterized the large schools of former days were wanting. The struggle to retain the same number of schools as when the adult population was greater, the property valuation was twice as large and the town had three times as many children of school age, was as painfully evident then as it is now. The school had been the common centre of interest, and the thought of its closing was a shock to the people. No wonder a deep-seated feeling existed, and still continues, that home interest and property valuation would suffer from the discontinuance of the local schools.

People are now coming to see that educational advantages

are not represented by the number of near-by schoolhouses. From one of the annual reports of Dr. Harris, U. S. Commissioner of Education, we quote as follows : —

It has been frequently demonstrated and is generally conceded that it would be better both on economical and on pedagogical grounds to unite the many small and weak schools of a township, dispersed over a large extent of territory, into a few strong, well-equipped and well-conducted graded schools, located at convenient points.

Legislative Authority for the Conveyance of Children. — To consolidate schools with any degree of uniformity and efficiency in different towns, conveyance of children at public expense became a necessity. To this end Massachusetts enacted the following law, in 1869 : —

Any town in the Commonwealth may raise by taxation or otherwise, and appropriate, money to be expended by the school committee in their discretion in providing for the conveyance of pupils to and from the public schools.

Hon. Joseph White, secretary of the State Board of Education, said : —

This act was introduced into the Legislature through the efforts of a practical man from one of our rural towns of large territory and sparse population, where the constant problem is how to bring equal school privileges to all without undue taxation. In too many cases the town seems to have forgotten that the character of the school is of more importance than its accessibility. This has led to the maintenance of such a number of small schools as to shorten their length of continuance, diminish their efficiency and largely enhance the expense.

Mr. Eaton's Statement. — The first general statement in print of the results of the law of 1869 was probably the pamphlet prepared by Superintendent of Schools W. L. Eaton of Concord, in 1893, for the Massachusetts public school exhibit at the World's Columbian Exposition. As the combination of schools in Concord was probably more complete than in any other town in the State, the selection of Superintendent Eaton to prepare the pamphlet was highly appropriate. Mr. Eaton says, in part : —

At first the authority was used mainly to convey pupils to the high school. Within a few years, however, many communities have used this authority to increase the educational advantages of the children, constantly decreasing in numbers, who live in districts at a distance from the centre of population. This has been accomplished by closing many district schools and transporting, at public expense, their pupils to the neighboring district schools or to the village.

Superintendent Eaton sent circulars of inquiry to 165 towns and cities, and received replies from 135. These replies indicated a gradually increasing number of schools as closed yearly. The reasons for closing schools were given as "financial and educational." Mr. Eaton further says:—

In many of the towns of the State depopulation of the districts outside of the villages has made it cheaper to transport to other schools than to teach them *in situ*. . . . In other towns the desire to make strong central schools, and the purpose to give all of the children of the town the benefit of better appliances, better teachers and better supervision, have been the dominant motives to determine consolidation. . . . There is a substantial agreement in the affirmative that results have been satisfactory.

Consolidation as seen by the State Board of Education.—In the report of Agent G. A. Walton to the State Board of Education, in 1889, consolidation of schools is recommended. In more recent reports of the Board many facts and opinions, based upon observation and upon information received by the secretary and agents, may be found. Some of the reasons advanced by them for the consolidation of schools and the conveyance of children may be briefly stated in abridged form, as follows:—

Diminished school population, rendering the schools small and expensive, making it difficult to secure competent teachers for the wages that can be paid.

The cost in some small schools of five pupils was \$50 per pupil, while in schools of twenty-five pupils the cost was only \$10 per capita.

Two essential things must be kept in view,—efficiency and economy. To secure these, there must be comfortable, convenient schoolhouses, necessary appliances, intelligent teaching, skilled supervision, and no more schools than are needed for the number of pupils.

In some towns two or more schools may be united, according to convenience of location. In others, most of the outlying schools can be accommodated at the centre by transportation of pupils.

In a few towns of large area, bad roads and scattered population, little or no combination can be effected. In such cases the schools, small or large, must have such attention by the town, and, if necessary, such aid by the State, as will make them as good as possible.

One of the results that follow from consolidation is a better grading, a better classification of pupils, by placing them where they can work to the best advantage.

Consolidation gives a better opportunity for special instruction in music, drawing and nature study, and brings all the schools under closer oversight by the superintendent.

It insures better school buildings, appliances and teaching force.

The money saved in a small town by reducing the number of teachers is often large enough to furnish better school accommodations to the children, better wages to better teachers, such transportation as consolidation requires, and longer schooling.

Objections to Consolidation. — It must not be supposed that policies of consolidation are adopted without earnest discussion. In some cases the opposition has been so strong as to stave off favorable action for years. Among the reasons urged against consolidation the following may be cited: —

Injury to the district, by removal of the school.

Risk to the health of children, because of long rides in cold and in stormy weather.

Association in carriages and during the long noon intermission at the schoolhouse.

Injury to health of cold dinners hastily eaten.

Long absence of young children from home.

It may be questioned whether the objection regarding injury to the property valuation of the district is a serious one. People having children to educate are not slow to see that educational advantages are not represented in their fulness and completeness by near schoolhouses. This property objection is well met in the replies to questions submitted to the towns, to which later reference will be made.

The objections to the risks of conveyance and of the noon intermission are of serious import, and can be met only by

making transportation safe to health, manners and morals, as well as comfortable, and by requiring the presence of a teacher at the noon intermission.

Are Towns required by Law to convey Children?—Questions frequently come from parents to the secretary and agents of the Board as to whether towns are required by law to convey their children to school. All that can be said in reply is substantially as follows:—

1. It is made by law the duty of every town to “provide and maintain a sufficient number of schoolhouses, properly furnished and conveniently located, for the accommodation of all the children therein entitled to attend the public schools.”

2. It is recognized everywhere throughout the State that a schoolhouse is conveniently located if it is within reasonable walking distance of its pupils, or if, the schoolhouse not being within such reasonable walking distance, the pupils are conveyed to it at public expense.

3. The law does not determine what a reasonable walking distance is; that must be decided by the school committee.

4. Whatever the school committee decides to regard as a reasonable distance for school children to walk, that is the distance they must walk. If a child within the compulsory age limits is not sent to school on the ground that the distance prescribed for him to walk is an unreasonable one, it is the legal duty, nevertheless, of his parent or guardian to send him to school, unless other legal provision is made for his education; failure to do so, if adjudged by the courts to be a violation of law, is punishable by a fine.

5. It is the duty of the truant officers to follow up such violations of the law, and of the school committee to see that the officers whom it appoints for the purpose do their duty.

6. Chief Justice Shaw, speaking of the power of school committees in connection with certain general duties, where there is an absence of specific legislation, says (5 Cush. 207–209): “When this power is reasonably exercised, without being abused or perverted by colorable pretences, the decision of the committee must be deemed conclusive.”

7. The State Board of Education is given no authority to decide what a reasonable walking distance is.

Progress of Consolidation. — The progress of consolidation through transportation for the last ten years is indicated by the tabulation of expenses, as given in the sixty-second report of the State Board of Education : —

Aggregate Cost of Conveyance for the State.

Year.	Amount expended.	Year.	Amount expended.
1888-89, . . .	\$22,118 38	1893-94, . . .	\$63,617 68
1889-90, . . .	24,145 12	1894-95, . . .	76,608 29
1890-91, . . .	30,648 68	1895-96, . . .	91,136 11
1891-92, . . .	38,726 07	1896-97, . . .	105,317 13
1892-93, . . .	50,590 41	1897-98, . . .	123,032 41

Further Consolidation needed. — Now that the law extends the minimum length of the school year to 32 weeks, some small towns will be obliged to reduce the number of schools in order to pay their teachers sufficient wages to make them eligible to the payment of \$2 a week to teachers of exceptional excellence from the school fund, as provided by a recent law. Quite a number of these towns are now paying over \$5 a year on \$1,000 valuation for school purposes, and they can hardly bear any heavier school expense. These towns and the State ought to co-operate to maintain good schools for all the children.

Consolidation of Schools in Other States. — A Maine law of 1897 says : “The superintendent of schools in each town shall procure the conveyance of all public school pupils residing in his town to and from the nearest suitable school, for the number of weeks for which schools are maintained in each year, when such pupils reside at such a distance from the said school as to render such consolidation necessary.”

A law of New Hampshire provides that town school boards may use a portion of the school money, not exceeding twenty-five per cent., for the purpose of conveying children to and from schools.

A similar law existed in Vermont in 1894. A new law goes into effect in February of this year, whereby, “upon the application of ten tax payers in any town, the school directors shall furnish transportation to any and all children residing one and a half miles or more from any school; but the aggregate cost of such conveyance shall not exceed twenty-five per cent.

of all the school moneys." Vermont is now expending twice as much for transportation as ten years ago.

A provision of the school law of Connecticut authorizes town school boards to unite schools "when, in their judgment, the number of pupils is so small that the maintenance of a separate school is inexpedient," and provide transportation for the pupils.

The New York law of 1896 provides for a tax for conveyance of pupils by vote of the inhabitants.

A law of 1894 in New Jersey and one of 1897 in Nebraska provides for transportation of pupils.

From the report of the minister of public instruction for Victoria, in Australia, the following extract is taken: "Under the system of conveyance 241 schools have been closed. The saving in closed schools amounts to about £14,170 per annum. The attendance is so regular and the system so popular that applications are constantly made for its extension."

Distances. — In Victoria the law provides that the following shall be deemed a reasonable excuse for non-attendance upon the public schools: —

That there is no State school which the child can attend within a distance of two miles, measured according to the nearest road from the residence of such child; excepting when the child is more than nine years of age, then the distance shall be within two miles and a half from the residence of such child measured as aforesaid; and when the child is more than twelve years of age, then the distance shall be within three miles from the residence of such child, measured as aforesaid.

Victoria has eight times the area of Massachusetts, but only half the population. Nearly half of this population is rural.

The Massachusetts Legislature has never made any requirement about the limit of distance beyond which children should be conveyed to school at public expense except in a single instance. Chapter 541, Acts of 1898, provides that the town of Boxford may use the Barker Free School as a high school upon complying with certain conditions, one of which is that the town shall furnish free transportation to the school for pupils who live more than two miles away from it.

The following quotation is from the fifty-ninth annual report of Frank A. Hill, the present secretary: —

The secretary, when asked his opinion about reasonable distances, inclines to the view of his predecessor, that little children should not be made to walk much over a mile, although older children of grammar school age may walk a mile and a half—or even more. But numerous conditions may serve to modify this opinion. If for little children the mile lies through lonely, unfrequented, wooded or difficult roads, it would be too great or too dangerous a distance for them to walk. If, on the other hand, the way lies over a well-travelled thoroughfare, with good sidewalks, and houses all along the road, it would not be a hardship for the children to walk a considerably greater distance than one mile. Transportation should not be used to reduce sturdiness, self-reliance and reasonable self-denial in boys and girls. It often has to be partial for some while complete for others. In cases of genuine doubt, the leaning should be towards the convenience of the child.

How far School Committees have Power to expend Money for Conveyance.—The question is often asked, “How far does the school committee have power to expend money for conveyance? Has it, for instance, any power to do so in the absence of a specific appropriation for the purpose, or in the absence of any mention of conveyance in the general appropriation for schools?” Each committee must answer this question for itself. Secretary Hill makes the following observations, which may be of service to committees in making their decisions :—

Section 10, chapter 27, Public Statutes, in enumerating the powers of towns, says that “they may at legal meetings grant and vote such sums as they judge necessary for the following purposes: For the support of public schools authorized or required by law. . . . For conveying pupils to and from the public schools, the same to be expended by the school committee in their discretion.”

Inasmuch as the statutes make a separate provision for the authority of towns to appropriate money for conveyance, it has been commonly held in practice that, if towns do not specifically appropriate money for conveyance, then school committees have no money to expend for the purpose. As to the form of making the appropriation for conveyance, some towns raise a single gross sum for the support of schools, including conveyance, which is mentioned by name in the vote. Other towns make two separate appropriations, one for support and the other for conveyance. Even when no appropriation is made for conveyance, school committees sometimes expend

money for it under their general authority to act for the welfare of the schools. They are more likely to do this when the amount of money involved is small, or when circumstances require special action, as when a schoolhouse is repairing, and the children are conveyed meanwhile to some school elsewhere.

Up to 1896 "support" was understood to mean "only the wages and board of teachers, fuel for the schools, and care of fires and schoolrooms." This was the definition given in the certificate of expenditures for public schools whose form is prescribed by statute, whose statements must be certified by the school committee under oath, and whose return must be annually made to the secretary of the State Board of Education. The law requires that every town shall raise annually by taxation for the support of schools as support is defined in the statutes at least three dollars for each child between five and fifteen years of age. The distribution of the income of the school fund is based by law on the amounts expended by the towns for such support. In section 6, chapter 43, P. S., it is provided that a sum not exceeding twenty-five per cent. of a town's share in the income of the school fund may be diverted from the support of schools to purchasing certain books and supplies, thus implying that the latter are not included under support, and confirming the restricted definition of support in the law.

In the popular thought, however, support has for a long time meant much more than is given in the definition of the statutes. It certainly has covered text-books and supplies, supervision and sundries, and even expenditures for repairs. Except for the fact that the statutes, after authorizing towns to raise money for the support of schools, separately authorize them to raise money for the conveyance of children, such conveyance would easily and naturally have taken its place with text-books and the like, under the popular notion of support; in which case committees would have provided for conveyance, as for any other school expenditure, out of the general appropriation for support.

Three years ago the certificate of expenditures already alluded to as containing the statutory definition of support was so amended as to make support thereafter mean, "only the wages and board of teachers, *the transportation of children*, * fuel for said schools, and the care of fires and schoolrooms." This amendment apparently has the effect of giving to school committees the right to expend money for conveyance out of the general appropriation for the support of schools; or, if it is claimed that the school committees have really had that right in the past, the amendment has the effect of recognizing and sanctioning such right. Any money now appropriated "for

* Chap. 179, Acts of 1896.

the support of schools" would seem to be available for whatever the statutes include under that head, and, therefore, for the transportation of children. Certainly if such money is available, as it is in popular thought and practice, for text-books, supplies, supervision, etc., which are not specifically mentioned in the statutory definition of support, it ought *a fortiori* to be available for transportation, which is specifically mentioned in that definition.

If the school committee is still in doubt as to its authority to expend money for conveyance out of the general appropriation, in the absence of a special vote by the town to that effect, it may, if it sees fit, pay for the conveyance of children out of the town's share in the income of the school fund. The town's share in this income, including any unexpended balance of it from a previous year, must be used by law for the support of schools; it is not under the control of the town at all, but under that of the school committee (section 6, chapter 43, P. S.). As support now includes conveyance, and as the committee has absolute control of this particular money, which must by law be expended for support, its authority to use it or a portion of it for conveyance would seem to be clear.

It needs to be stated once more, however, that whatever questions may arise as to the authority of the school committee to expend money for conveyance, such questions the committee must decide for itself, in the light of such facts and principles as are at its disposal.

Circulars of Inquiry. — To secure as complete information as possible regarding the history, progress, means and results of consolidation of schools and conveyance of children in Massachusetts, circulars containing inquiries regarding the different phases of the plan were sent to the school officials of all the cities and towns of the State. Nearly 200 replies have been received, representing conditions and practices in all sections of the Commonwealth, from the largest cities to the smallest towns.

When their gist is contained in a few similar words or sentences, these replies are given only in percentages, or in a general way. Special facts, opinions and suggestions are quoted as fully as space will allow. As the circular calls for information upon more than twenty different phases of the subject, it is not possible, in the space allowed to this report, to name the towns responding. The returned circulars are on file at the office of the secretary of the State Board of Education in Boston.

The circular of inquiry began with the following letter : —

NORTHAMPTON, MASS., Dec. , 1898.

To the Chairman of the School Committee or the Superintendent of Schools of

Many inquiries come to the State Board of Education, not only from our own towns and cities but from those of other States, regarding the need, operation and results of plans for the consolidation of schools and the conveyance of children that naturally accompanies such plans. That such inquiries may be answered fully and intelligently, your co-operation is earnestly desired. Will you favor me, therefore, with such information about your own town's (city's) experience with consolidation and conveyance as is called for under the heads herewith given? Please forward your reply as soon as possible to

G. T. FLETCHER,

Agent of the State Board of Education.

The inquiries are given in full, as follows, the answers to each inquiry being given in immediate connection with it, and with various degrees of abridgment : —

I. GENERAL CONDITIONS FAVORING OR REQUIRING CONSOLIDATION.

Changes in population, property valuation, etc., that have impaired the efficiency of your schools by reducing their size, increasing their cost, making it harder to get good teachers, etc.

More than 50 per cent. of the towns report changes in population and property valuation in the towns as a whole, or in sections of them, that have affected the school conditions.

The following statements are samples of those coming from a large number of rural towns : —

Attendance of pupils reduced ; cost in a small school per pupil for a year, \$46.82 ; in the central building, \$16.30.

Difficult to retain good teachers.

Population diminished more than a half and property valuation more than a third since 1875.

Loss in population and property valuation makes it hard for us to meet increasing educational demands.

Good teachers command better wages than we can pay.

In one district that formerly had 60 to 80 pupils there are now 13. The farming population has disappeared.

Farming population once over 1,100 ; now only 605. Valuation reduced from \$375,000 to \$309,000.

Population reduced from 2,300 to 1,400 in thirty years; loss of \$70,000 in valuation in five years.

Farms abandoned; not children enough in any district to keep a school.

In many towns the loss in population and wealth is only in sections, usually in outlying districts, and so affects certain schools only. Many towns have gained in the villages as much as they have lost in the rural sections. Some towns and all of the cities have gained in population and wealth; yet most of them in some quarters have had to deal with diminishing schools.

II. WHAT THE TOWN HAS DONE TOWARDS CONSOLIDATING ITS SCHOOLS.

The number of schools that have been closed, whether the consolidation is partial or universal, whether it has gone on gradually or was brought about at one stroke, whether any children are sent to schools in adjoining towns or not, whether higher grades are taken to the high school building or not, etc.

More than 65 per cent. of the towns and cities reporting have found it necessary or advantageous to close and consolidate some schools. Movements of population within town or city limits as well as the exodus of people from many towns have led to the closing of schools, but have not always involved the transportation of pupils.

Probably Quincy was the first town to act under the law of 1869, having closed two schools in 1874 and transported the children to other schools.

In the year 1893 Seymour Rockwell, the veteran school committee man of Montague, said: —

For eighteen years we have had the best attendance from the transported children; no more sickness among them, and no accidents. The children like the plan exceedingly. We have saved the town at least \$600 a year. All these children now attend a well-equipped schoolhouse at the centre. The schools are graded; everybody is converted to the plan. We encountered all the opposition found anywhere, but we asserted our sensible and legal rights, and accomplished the work. I see no way of bringing the country schools up but to consolidate them, making them worth seeing; then the people will be more likely to do their duty by visiting them.

This statement indicates that consolidation of schools was heroically completed in Montague in 1875.

Consolidation was begun in Concord in 1879 : —

Prior to that time and for many years afterwards there was a rapid diminution of school population in the outlying districts. Of late the school population of these districts has increased. We attribute this to the willingness of young married people to settle on these farms, since transportation secures to their children educational opportunities as good as the town provides. Consolidation begun as an experiment, was carried to completion, at the desire of the population affected.

From another town came this suggestive statement : —

Once when a man wished to sell his farm he advertised, “ A school near.” Now he advertises, “ Children conveyed to good schools.” Farms sell more readily now.

Other towns report as follows : —

We have closed only one school, and that for two terms during the year, as the lot will revert to the former donor unless a school is kept in the building.

The scattered population renders consolidation undesirable in our town.

Planned at one time to close a school, owing to smallness of numbers, and convey the pupils to the next village. After consideration, decided that only an unwise parsimony on the part of the town could favor the project, and it was abandoned forever.

A few years ago the town tried to “ double up ” the schools, and convey the pupils, but the people would not listen to the suggestion, mainly through ignorance.

Attempted to build a new schoolhouse and grade the schools, but bitter opposition upon the part of the older people defeated the plan.

We believe in closing the schools when it can be done.

Our rule is to keep a school as long as there are ten pupils in it.

From 1 to 10 schools have been closed in different towns. Consolidation is generally partial ; in a few towns, complete. Most frequently it has been accomplished gradually ; in some instances, at “ one stroke.” In 25 instances pupils belonging to higher grades are taken to the high school building.

III. APPROPRIATIONS FOR CONVEYANCE.

Whether the town raises money for the purpose by a specific appropriation separate from the regular school appropriation or by making the regular school appropriation include transportation.

About 60 per cent. of the towns reply, "By a specific appropriation, separate from the regular school appropriation." Forty per cent., "Make the regular school appropriation include transportation." It seems evident that the law requiring towns to raise money for school purposes should include in the amount so raised whatever sum may be needed for transportation. In this connection, see the views of Secretary Hill, as given on pages 445-447.

IV. DISTANCES.

(1) *The conveyance of children, — whether they are conveyed all the way to school or only a part of it, whether the carriage goes to the house in every case, or some pupils have to meet it at designated points, etc.*

More than 50 per cent. of the towns report that they "convey all the way from the home to the school." Other towns say that, unless the conveyance, carriage or car passes their homes, the children walk to the main street, or to designated points, or to the closed schoolhouse, or to the streets through which the electric cars run, etc. In a few towns the carriage goes to every home in stormy weather, to take and leave the children. In some towns conveyance is furnished only in winter or in stormy weather. In some cases children are conveyed to school, but not from it unless the weather is stormy or the travelling bad.

(2) *The distances children are conveyed, — whether any are fixed absolutely or approximately, what they are and what conditions determine them, etc.*

Those who interpret this question to mean the distance within which children will not be transported to school at public expense make the distance from one mile to two miles. In one town small children will in some cases be conveyed to school if the distance from home is less than a mile. There seems to be no consensus of opinion regarding what is a "reasonable walking distance." Age, sex and strength of

pupils, nature of the road, the amount of money appropriated and the disposition of the committee seem to be determining factors. It is the one difficult question which committees must settle for themselves, making such judicious provisions as will insure school attendance for all without undue hardship to any.

The majority of committees and superintendents understand the question to refer to the maximum distance of conveyance, and reply that they convey pupils "all the way from home to school," or "from the closed schoolhouse to the new one," or two, four, six or eight miles, as the case may be.

(3) *Questions of conveyance and distances, — whether in deciding them young children are considered more than older ones, girls more than boys, the lower schools more than the high school, wooded, lonely or difficult routes more than open, easy and populous ones, etc.*

Approximately, 45 per cent. of the towns report that they give equal consideration to young children of both sexes.

Ten per cent. report that they give a preference to girls in their plans.

In twelve per cent. of the responses the character of the routes was mentioned as an important factor in determining plans.

Thirty-two per cent. make no discrimination as to children, schools or routes.

V. PAYMENTS FOR CONVEYANCE.

Whether payments for conveyance service are made to the parents of the pupils or to persons hired for the purpose, whether they are made by the trip, the week, the term or the year, with or without reference to the precise number carried, or in accordance with a fixed charge per pupil or a fixed rate per mile or some other system, with one or two illustrations of the amounts paid or rates fixed for definite services.

Payments are sometimes made to parents for the actual attendance of their children, — so much per day a child, the teacher keeping a record. It is noticed in such cases that the attendance is very regular, and that the children are able to walk most of the time. Payments are most frequently made to persons hired for the purpose, or in some towns and cities to steam and electric railroad companies. Illustrations : —

One parent was paid 50 cents a trip for conveying his children three miles.

A parent carries his children for \$10 a term.

A parent transports his children two miles for \$15 a year.

The foregoing may be cases in each of which the father takes his children to school as he goes to his work.

Some parents carry the children of several neighbors with their own for a moderate sum.

Five cents a day for each pupil attending school.

Many pupils ride on electric cars at half-fare, tickets being furnished by the school committee to be distributed by the teachers.

Carriages hired by the week: \$9 for transporting 12 children 2 miles; \$4 for transporting 4 children $1\frac{3}{4}$ miles.

Some make yearly payments as follows to persons hired for the purpose: —

Seven pupils, 3 miles, for \$75; 29 pupils, $1\frac{1}{2}$ miles, for \$80; 11 pupils, $2\frac{1}{2}$ miles, for \$85; 7 pupils, 2 miles, for \$70.

Six hundred dollars a year, without regard to the number of pupils.

One school, one year, \$175; another school, one year, \$195.

Two hundred dollars and \$300 a year, without regard to number.

By the week for a certain number of pupils, one route, \$2.10; another and shorter route, \$1.30.

One route, \$5 a week; on a bad road, two children, \$6.25 a week.

VI. DETAILS OF TRANSPORTATION.

Persons who are charged with the duty of bargaining for and settling the details of transportation; the vehicles selected, — whether covered or otherwise made comfortable; the drivers, — whether selected with reference to their trustworthiness and fitness to care for children, etc.

In 43 per cent. of the towns the school committee makes bargains and settles details; in 10 per cent., a sub-committee of the school committee; in 5 per cent., chairman of school committee; in 12 per cent., the superintendent of schools; in 4 per cent. of the towns arrangements are made by the committee and the superintendent. In about half of the towns vehicles are covered and comfortable; in the others, not covered excepting in bad weather.

Nearly all of the drivers are reported to be "trustworthy." Some are said to be "as good as we can get." Some are of "doubtful qualifications." All committees and superintendents regard trustworthiness and fitness in the driver as of the highest importance. One committee says : —

Only such persons should be employed as we would trust with the care of our own children.

A few committees say that they have to watch drivers of conveyances, and hold them to strict account. Some complain that children are not under proper control in the carriages ; but, upon the whole, there seems to be a good degree of satisfaction with such vehicles and drivers as have been employed.

VII. ADVANTAGES OR DISADVANTAGES OF CONVEYING CHILDREN TO SCHOOL.

(1) *Effect, if any, on promoting attendance.*

The testimony upon this point is nearly unanimous that attendance is improved by conveyance of pupils. Some speak of the increase as very decided ; a few say, "No effect."

(2) *Effect, if any, on health of children conveyed.*

A majority see "no effect upon health." A large number say, "Effect good ;" and add that there is less exposure to rain, snow, cold weather, sloppy or muddy travelling ; consequently, fewer colds. A few speak of the unfavorable effect of cold dinners, hastily eaten. A few others say, "Not healthy." Much depends upon the vehicle and the driver.

(3) *Any trend towards needlessly short distances for conveyance or towards reduced self-reliance and sturdiness on the part of the children conveyed?*

The larger number of replies are to the effect that no such trend is noticeable, but about three-fourths as many replies are to the contrary effect. Comments : —

Depends upon the firmness of the school committee.

We have a rule, and when parents and children know what it is, nothing more is said.

We meet all reasonable demands, then stand firm.

Pupils have so much done for them that they are not willing to do anything for themselves.

(4) *Effects as regards (a) the character of the school buildings and equipment, (b) the classification or grading of pupils, (c) the quality of the teachers and their work, (d) the efficiency of the pupils, and (e) the general spirit of the school.*

The larger number of towns report under (a) an improvement in the character of school buildings and equipment resulting from consolidation. Some say, "No effect yet." Under the remaining subdivisions of (4) there is a very marked accord that in all respects improvement is very evident.

A few comments : —

Better ventilated rooms ; hence more healthful.

Costs less for repairs ; better janitor service.

Houses closed were in poor repair ; good teachers would not remain in them.

Pupils better classified ; three teachers do the work of five in ungraded school.

Too strict grading not beneficial.

Petty local jealousies lost in the larger school.

I question if the too closely graded school of 50 pupils reciting in one division is not inferior, from the pupil's stand-point, to the ungraded school of 20 pupils. Advantage of the ungraded school lies in the greater freedom of the individual pupil to advance at a rate best suited to him.

Pupils are more studious in the graded schools with only their classmates with whom they must compete.

Greater incentive and enthusiasm.

In the graded schools pupils lose the personal oversight of the teacher which in small schools is of so great advantage.

(5) *Any further results, good or bad, to be expected from the extension of the consolidation policy?*

None but good.

Pupils become better acquainted with people ; hence less bashful and awkward.

The time lost by the superintendent on the road is saved by consolidation of schools.

It becomes possible to give to all the pupils of the town the advantages of special teachers in drawing, music, etc.

Real estate men think it will reduce the value of their property in the rural districts.

Objection to having small children so long from home.

Our people would as soon think of having district churches as district schools.

Association with others whose lives are less restricted than their own is a gain in social graces.

Much is to be expected in moral influences, as conditions are better in the graded than in the ungraded schools. This is especially true as regards outbuildings or basements in their sanitary arrangements, and the oversight had in and about them.

Economy and efficiency.

I do not favor too great efforts to consolidate. Drivers are not and cannot be expected to be men who can control children and hold their respect.

A compact neighborhood with a good school should be let alone.

(6) *The cost of the schools after consolidation, — whether less or greater than before or the same, and whether with poorer, equal or better results.*

Sixty per cent. of the towns report the cost as less, but the results as better; 15 per cent., cost the same, but results better; 8 per cent., cost more, but results better; 8 per cent., cost more, but results not stated; 8 per cent., cost less, but results not stated.

(7) *The public attitude towards the policy, — whether one of approval or not.*

Reports of approval, in some cases of modified approval, are related to cases of strong opposition about as 70 per cent. to 30 per cent. Comments: —

At first opposed; later approved.

Those favored by the plan approve it; those not, oppose it.

Sanctioned when committee advocated it.

Opposed to extension of policy.

No "public attitude" here.

The policy is never questioned.

Opposed.

Toleration.

VIII. CONSOLIDATION NOT DESIRABLE OR FEASIBLE.

(1) *Any large rural schools — schools of twenty-five to forty pupils — that probably would not be helped by processes of consolidation?*

More than half the replies indicate that there are rural schools that would *not* be helped by consolidation. Several towns report having one or more rural schools with an attendance of 20 to 40 pupils. Some special replies: —

Distance and size render transportation difficult and expensive.

Retain such schools if good teachers can be secured.

Would not consolidate a school of over 20 pupils.

One school 6 miles from the centre.

We have a large rural school of 50 pupils with two teachers.

I would prefer that a child of mine should be educated, up to the high school grade, in a school of 30 pupils under a superior teacher rather than in the ordinary graded school with the average class-room instruction. I think there is a tendency to grade too much. In a well-organized and conducted ungraded school there is an unconscious review all the time and an anticipation of what is to come. The whole is there and the part in relation to the whole.

A good district school, with 25 pupils and an efficient teacher, can be made equal to any closely graded school, and better than most of them.

Consolidation has disadvantages as well as advantages.

Thirty towns report that consolidation would help all of their ungraded schools; it would provide better houses, appliances, teachers and superintendence at equal or less expense.

(2) *Conditions that largely or wholly forbid consolidation.*

About fifty towns mention objections of varying degrees of seriousness that have been urged against consolidation: —

Too long distances; bad roads, blocked in winter for weeks.

Pupils too young to ride long distances.

Lack of money to pay the expense of suitable transportation.

Strong opposition of the people to the machine-like system of conveyance of pupils.

Saloon at the centre; cannot have a schoolhouse near.

Invasion of individual rights.

Belief of farmers that closing rural schools reduces the value of their property.

Willingness of village people to allow those in the outlying districts to have their own way. "Ephraim is joined to his idols; let him alone."

Not room enough in the centre buildings for more pupils.

IX. MISCELLANEOUS.

Any facts about consolidation and conveyance in your town not directly called for under the foregoing heads, or any brief statements about school conditions that need improving but cannot be met by schemes of consolidation?

Illustrations of replies : —

The greatest need is money to pay higher salaries to teachers. Must be more State aid.

All possible consolidation of schools, also skilled superintendence, should be made compulsory.

We encourage higher grades to go to the centre.

All high school studies should be eliminated from upper rooms, that grammar grade work may be better done.

If let alone, we are well enough. Too much disposition to make our schools large and expensive.

Consolidation should be carried far enough to warrant three rooms and three teachers below the high school.

Partial consolidation under some conditions would seem to be feasible and desirable. (1) As of adjacent districts far from the centre but not very distant from each other, a team between the two buildings, placing the younger children of both districts in one of these buildings, and the older children in the other. (2) If new outlying buildings are constructed, make them two-room buildings, on the dividing line of two or more districts. Collect pupils by transportation of those farthest away.

Various ways and means of improving the schools are suggested in the replies received. Approval and disapproval of theories and practices are freely given. Results are stated. On the whole, the smaller schools of Massachusetts are gaining through consolidation; they may be made more efficient by an earnest determination of the people that they shall be more efficient; but mutual concessions and hearty co-operation are essential to that end.

Conclusion. — This report is a brief summary of the laws of eight States and one foreign country regarding the consolida-

tion of schools and the conveyance of children, of the opinions of the United States Commissioner of Education, of several State superintendents of public instruction, of the secretaries and agents of the Massachusetts Board of Education, and of facts and views from the school committees and superintendents of schools of more than half of the municipalities of the State, representing the largest cities as well as the smallest towns in every section of the Commonwealth.

While the weight of opinion is decidedly in favor of consolidation of schools, as being in the line of economy and efficiency, there are strong arguments in favor of the fair-sized, well-organized, thoroughly taught ungraded school. Small, isolated rural schools must exist in some towns of the State for years to come. The children are not responsible for the unfavorable conditions in which they are placed, and they are morally and legally entitled to a good education. Some of these schools are taught by women of rich culture, and of large previous experience in other educational fields. They are now "home talent" because of the love and care needed by aged parents. The teaching and the character-building in these little schools are of rare value. There are other teachers of exceptional abilities who will for a reasonable compensation do needed work in communities thus situated. The State is in duty bound to aid the town in securing to every child good educational advantages. If such influences of frugality and industry as characterized the home life in the country in former days can be kept up, and supplemented by excellent teaching, these isolated rural schools may do good work, even if they are denied the advantages of consolidation.

H.

REPORT ON TRUANT SCHOOLS.

BY FRANK A. HILL, SECRETARY OF THE BOARD.

*Based on reports by John T. Prince, J. W. MacDonald and G. T. Fletcher,
Agents of the Board, and on information from various sources.*

THE COUNTY TRUANT SCHOOLS.

Visitation by the State Board of Education. — The Legislature of 1898 ordered that county truant schools should be subject to visitation by the State Board of Education and by the State Board of Lunacy and Charity, and that said boards should report thereon annually to the Legislature.

Accordingly, agents of the Board have visited the different county truant schools, and made reports thereon to the secretary of the Board. From their reports as well as from such other sources as are available, the material of the present report has been prepared. No attempt has been made to give a complete or exhaustive view of the county truant schools. In some instances the report is limited to educational conditions only.

County Truant Schools of the State. — The following table gives a list of the different county truant schools in the State : —

County Truant Schools.	Location.	Superintendent.	No. of Pupils.
Essex,	Lawrence, .	H. E. Swan, .	47
Hampden,	Springfield, .	E. G. Ward, .	29
Hampshire and Franklin, . .	Goshen, . .	W. A. Barrus,	—
Middlesex,	No Chelmsford,	M. A. Warren,	104
Norfolk, Bristol and Plymouth, .	Walpole, . .	A. R. Morse, .	46
Suffolk, — Boston Parental, .	West Roxbury,	Buel C. Day, .	166
Worcester,	Oakdale, . .	F. L. Johnson,	34
Total,			426

It will be noticed that but ten of the fourteen counties of the State are named in the foregoing list. The counties of Barnstable, Berkshire, Dukes and Nantucket are by law exempted

from maintaining truant schools of their own; but the county commissioners of each of these excepted counties are authorized to avail themselves of any existing county truant school as a place of commitment. For this privilege the excepted counties must pay such reasonable sum as the county commissioners having control of the selected truant schools may determine.

SUFFOLK COUNTY TRUANT SCHOOL.

The Boston Parental School. — The Parental School of Boston is by law deemed the truant school for Suffolk County, although Chelsea, Revere and Winthrop, which are the only other municipalities in Suffolk County, are regarded by the same law as belonging to Middlesex County for truancy purposes.

It is called the Parental School in deference to the strong conviction of Boston that the school should have a designation more in sympathy with the educational and humanitarian spirit that should pervade its management than with the punitive spirit that has too frequently characterized the management of truants in the past. The school attendance bill submitted to the Legislature of 1898 used the expressions “parental school” and “attendance officer” throughout, instead of “truant school” and “truant officer;” but the old and harsher terms were finally restored. The business of the efficient truant officer lies far more in the field of preventing truancy than in that of prosecuting it after it has occurred. It ought to be possible for him to make inquiries at the homes of pupils without exposing those homes to needless opprobrium. He is entitled to a name that recognizes the major and better part of his work rather than the minor and less agreeable part of it.

The Nature and Menace of Truancy. — In the last annual report of the committee on truant officers,* printed by order of the school committee of Boston, there is much that is of interest to the entire State. The report speaks sensibly of truancy as follows: —

Truancy is a matter affecting the body politic that has only recently received the attention that its vital importance to our social system demands. Much legislation has heretofore been had upon this sub-

* School Document No. 15, 1897, — a report submitted by Samuel F. Hubbard, chairman, James A. McDonald, Henry D. Huggan, Gustave Liebmann and Samuel E. Courtney, committee on truant officers.

ject, and more is proposed in the near future; but it is only lately that the principle has been fully recognized that the erring child should be reformed rather than punished, and that the cure for truancy is prevention. A truant is a child who is required under the law to attend school, but who wilfully, habitually, and in opposition to the wishes of the parent, absents himself therefrom. Unrestrained, the truant is more than likely to become a dangerous person in the community, and a menace to the peace of society. Often the truant is "more sinned against than sinning." His home environment is such that he is afforded no opportunity to form those habits that are fundamental to good citizenship. Deprived of such advantages, how can he be expected to acquire of himself, without suitable instruction and guidance, a proper esteem for himself and respect for others? Here, then, arises the responsibility of the State or city to the child, its obligation to afford him an opportunity to achieve good citizenship, beyond the mere providing of free schools, rather than to seek an excuse to brand him as a criminal. This responsibility has, we think, been recognized by the city of Boston in its establishment of the Parental School, and the maintenance of a competent and well-organized truant force, the members of which in general perform their varied duties with admirable tact, discretion and zeal.

The Teacher a Possible Cause of Truancy.—The teacher should not overlook the part he may play among the causes that create or prevent truancy. On this point the report has the following to say:—

Truancy grows largely from lack of resource in expedients for arousing and holding the attention and interest of the child, on the part of the teacher. There is, of course, the influence of heredity, environment, and the natural inclination of the child to be taken into account as modifying factors; but the wise and judicious teacher will realize that the more successful she is in holding the interest of the child, in stimulating its intellectual growth, in implanting in its breast a respect for constituted authority and regard for law and order, the less will be the inclination to truancy and the greater the prospective gain in true and upright manhood and womanhood to the State. An appeal to the rod should be a last resort. The best solvent of a perverse nature is love. The master of one of our school districts noticed that one of his teachers, new to the work and young in years, had a much larger average attendance than the other teachers under his control, and sought an explanation. The reply was that she endeavored to make the opening of each session particularly bright and attractive, to arouse the interest and

enthusiasm of her pupils as soon as they came into her presence, and so turn their inclination in the direction of the schoolroom rather than away from it. It is, of course, impossible to prescribe just how the school is to be made a place to be sought rather than avoided on the part of the child. The regular course of study must be followed, but the individuality, the tact of the teacher must be exercised in her own way. Some one said of Dean Swift that he could write entertainingly of a broomstick; and the personality of the born teacher will shine through and illumine the driest and most unattractive subjects. Were all teachers equally gifted with the ability to understand, to sympathize with and to direct the child, it seems clear that truancy would be reduced to a minimum.

Truancy Outside of the Compulsory Age Limits. — Truancy in the legal sense can only occur within the compulsory age limits. These have been made seven and fourteen, instead of eight and fourteen, since the report of the committee was made. Thousands of children under seven and over fourteen are in the schools. The truancy of these children, though it is not truancy in a statutory sense, is an evil that needs to be checked. The report says, under this theme: —

Truancy in the primary schools, limited in amount though it be, is of as great importance as in the higher grades. The children attending these schools are in the most formative period of their lives, and more susceptible to moral influences than at any later time. Goethe has said that the impressions formed by a child during the first few years of his existence are stronger and more enduring than those made during the whole of his subsequent life. A bad habit contracted in the primary school clings to the child during the whole term of his school attendance, and may result in his lasting injury, or even in his final ruin. The truant officers have no jurisdiction, under the present law, over children under eight years of age; and consequently their control over pupils in the primary grades is confined to moral suasion in cases coming under their notice, which, owing to the time of the officers being fully occupied with their regular duties, are of necessity comparatively limited in number. In these schools especially, therefore, should the wise and judicious teacher, mindful of her deep responsibilities, exercise a strong persuasive influence upon the children committed to her care, that will bear rich fruit in future years.

Absenteeism caused by Lack of Clothing. — What shall be done when children absent themselves from school because they

have no shoes to wear or their clothing is in rags? Boston handles this very perplexing matter as follows : —

In the course of their duties the various truant officers frequently become acquainted with cases where children are kept away from school because of the inability of their parents to provide them with suitable clothing. Many such parents are unwilling to expose their necessities by applying for charitable assistance, but do not object to receiving aid through the agency of the truant officers, who collect shoes and clothing from more fortunate people in their respective districts and distribute them among those who are destitute. Masters and teachers cheerfully and generously contribute to relieve the necessities of their pupils in this respect, and the amounts given by the truant officers themselves for such purposes are not inconsiderable in the course of a year. It has been recently suggested that it might be wise to appropriate annually a certain amount to be expended by the truant officers for the purchase of shoes and clothing for needy children, at their discretion, and that such an expenditure is as legitimate a tax upon the public treasury as the providing of free text-books. While we have no question that any money available for such purposes would be most judiciously expended by the truant force, yet, in view of the number of charitable organizations established in this city, and the numerous channels through which relief may be readily and speedily obtained by any one actually needing assistance, we feel that the time has not yet arrived to recommend that any action be taken in this direction.

A Special Court for Juvenile Offenders. — A very important recommendation of the committee that merits earnest attention is the following : —

Boston should have a single court having jurisdiction over truants and other juvenile offenders, as well as over parents failing to comply with the school attendance laws applicable to them. With one judge giving his entire attention to this class of cases, the laws relating to truancy and school attendance would be given a uniform interpretation, and the truant officers would be enabled to pursue their duties in full harmony with the well-understood practice of the court. As it is now, there is a lack of uniformity in the action of the judges of the several courts having jurisdiction, and the truant force is often embarrassed in the preparation and conduct of cases on this account.

The Truant Force of Boston and how it works. — The truant officers of Boston number nineteen, of whom one is the chief.

The city is divided into eighteen districts, to each of which an officer is assigned. Their method of work is as follows : —

A teacher suspecting an absent pupil of being away without the consent of the parents fills out a “truant card,” furnished for the purpose by the school committee, entering thereon the name of the pupil, his age, name of parent, residence, and date or dates of suspected truancy. These cards are collected by the officer in charge of the district, on his daily visit, and the cases immediately investigated by him. If an absent child is not suspected of truancy, but is supposed to be detained or allowed to remain at home without reasonable excuse, the teacher fills out an “information card,” which is an inquiry as to the cause of the pupil’s absence. In order that the time of the truant officer may not be consumed unnecessarily, the regulations prescribe that the “information cards” shall be examined and signed by the principal of the district before any investigation is made. It often happens that the truant officer is able to state the cause of the pupil’s absence immediately. In such cases the information is at once sent to the teacher, and the card destroyed, and the officer proceeds to investigate the remaining cases referred to him for attention.

The work of a truant officer demands intelligence, patience and tact to a marked degree. It frequently extends into the evening, as it often happens that more can be accomplished by their efforts with the fathers than with the mothers. The performance of this part of an officer’s duty is often exceedingly difficult of successful accomplishment. The interest and sympathy of the parents in the welfare of the children must be aroused and stimulated, and their coöperation enlisted in seeing that their children are regular and punctual in their school attendance. The result of the truant officer’s investigation is entered upon the back of each card referred to him, and stated to the respective teachers on the day following that on which the card was received by him. If the officer finds that an absentee has returned to the school, he notes the date of the return on the back of the card of such child, and signs his name. If a truant has not returned, the officer keeps the card for future investigation. The completed cards are then taken to the principal of the district for examination. If satisfied with the results of the investigation, he affixes his signature as evidence that the truant officer has performed his duty, and the cards are then transmitted weekly to the chief truant officer. The truant officer retains the cards of pupils who have not returned to school, and calls daily at the home and school until the child returns to the school, or until a satisfactory explanation of the absence is obtained, when the facts and the number of sessions absent are recorded on the card, which is then handed to the principal as described above. The truant officers are also alert and watchful for truants upon the

streets, and, finding such, take them to school and turn them over to the charge of the principal.

In the case of a persistent or incorrigible truant, after it has been demonstrated that the persuasive efforts of the truant officers are of no avail, a record is obtained from the teacher of the dates of suspected truancy for the preceding three months, which the truant officer presents, together with the result of his investigation, to the chief truant officer, who may then give his consent to the case being brought before a court having jurisdiction. The truant officer then brings the matter to the attention of the court, procures a summons, and notifies the parents to bring the child into court on a certain day. If they fail to comply, the child is arrested on sight and brought before the court. Except in extreme cases a truant is placed on probation, and if after the expiration of a few weeks it appears that reformation has taken place, the case is placed on file. If otherwise, the truant is again brought before the court and sentenced to the Parental School for a term not exceeding two years, in the discretion of the court.

Transfer Cards and their Importance. — When a pupil changes from one school to another, two transfer cards are prepared, one for the pupil and the other for the truant officer of the district. The latter delivers his card to the officer of the district to which the pupil removes. Thus a close and successful watch is kept of children moving from one section of the city to another. The system ought to be extended to the entire State, and can be so extended, if the spirit of reciprocity is generally shown, with great service in promoting the enforcement of the attendance laws.

Work done by the Truant Officers. — The following statistics give some idea of the activity of the Boston truant officers in enforcing the law : —

Number of Cases investigated by the Several Officers during the Year ending Aug. 31, 1897.

Whole number investigated on truant and information cards,	22,363
Found to be truants,	5,620
Complained of as incorrigible,	234
Put on probation,	53
Sentenced,	181
Transfer cards investigated,	6,611
New pupils put into school,	388
Neglected children placed in home,	4
Parents complained of for neglect of duty prescribed in section 1 of chapter 498, Acts of 1894,	5

The True Function of the Parental School. — Mr. Edwin P. Seaver, superintendent of the Boston schools, who has had much to do with the organization of the Parental School, makes the following wise and pertinent observations upon its true function : —

In the first place, many people must give up thinking that the Parental School is a penal institution, designed to inflict prescribed penalties for truancy and stubborn disobedience. People who undertake to reform boys on the principle of making hard the way of the transgressor, usually fail, because the boys appreciate perfectly well the spirit of such discipline, and simply bide their time, knowing that the season of their tribulation shall have an end, whether they reform or not. The Parental School will undertake the work of reforming boys on another and a better principle, — that of intelligent self-control. There is to be no high fence around the institution. How are you going to stop truants from running away? people ask. The answer is, By letting them run away. The boys are going to run away sometimes, but they are not going to run away so much as they would if a high fence were put around them. A truant was never cured of truancy by shutting him up or by flogging him, because such treatment does not generate intelligent self-control.

Secondly, the Parental School is not the proper place for boys who have already taken the first steps in crime, and who have manifested unmistakable tokens of criminal tendency and intent. Such boys are in need of more radical treatment. . . . But the persistent truant, the naughty boy of the schools or the disobedient son of despairing parents is not necessarily a criminal, though in imminent danger of becoming one if neglected. Such a boy needs the discipline of the Parental School. This distinction between the criminal boy and the truant boy has generally been recognized in theory, but circumstances hitherto existing in Boston have made the observance of it in practice impossible. . . . The State, as we know, has undertaken for its own protection to make education universal. To make education universal, it must be made free and it must also be made compulsory. Therefore no system of public education is complete without schools for truants, wherein are used the last resorts of compulsory education. When these fail, and not until then, can children rightly be surrendered by the educational to the criminal jurisdiction of the State.

If these views are correct, it is easy to recognize a vital relation between the Parental School and the other public schools of the city, and this relation lends importance to three other matters which shall be mentioned here.

First, the Parental School being an educational institution free from criminal associations, the courts may feel willing to commit truants to its care at an earlier stage in their career of waywardness than has been usual heretofore; and the truant officers need not hesitate so long to bring complaints. . . .

Secondly, it is of the highest importance that the new Parental School be kept altogether free from the taint and traditions of criminality. . . . The spirit and traditions of the new school are to be purely its own, untainted by any contact with the older institution. It is to be hoped, therefore, that the courts and the truant officers may act in accordance with this view, and see to it that no boys are committed to the Parental School on complaints for truancy when the real substance of their offending is of a criminal nature. . . .

Thirdly, if possible under existing laws, it would be highly advantageous to apply to all boys committed to the Parental School the principle of the indeterminate sentence. Under this principle all boys would be committed for the full term of two years; which term, however, could be shortened by the boys themselves through good behavior and the manifestation of a right disposition. A system of licenses, whereby boys appearing to have acquired habits of regularity, punctuality and self-control after six months' residence should be permitted to return to their homes on condition of attending the day schools regularly and behaving well, failure to fulfil this condition to be followed by a revocation of the license, would secure all the benefits of the system of pardons hitherto used, and would be free from its objectionable features. . . .

Releases from the Parental School.—The Legislature of 1896 authorized a system of releases from the Parental School, provided certain conditions, including the approval of the superintendent of schools, are met. Mr. Seaver gives four principles that should be recognized in connection with releases: (1) The release must be earned by the industry and good conduct of the boy himself. (2) The boy must have remained in the Parental School long enough to make a record of industry and good conduct worthy of consideration. (3) The condition of the home should be such as to make regular school attendance possible and probable. (4) Failure to comply with the terms of the release must be followed by the boy's return to the Parental School.

A Parental School for Girls.—It is the conviction of the educational authorities of Boston that a parental school for

girls is much needed. Twenty-five thousand dollars was at one time appropriated for the purpose, but the project is still in abeyance.

Possibilities of Improvement.—While the city has made rapid and commendable progress of late years in handling the truancy problem, it does not look upon its plans as completed. An agent of the Board of Education, after bearing witness to the increased efficiency of the truant service of the city, directs attention to one or two aspects of the educational work of the Parental School, which merit consideration :—

The boys of this school were serving sentences varying from three months to two years. The shortness of the sentences in this, as in other similar schools, interferes greatly with the reforming power of the institution. The tendency now, however, is to lengthen the term for which the pupils are committed.

The appearance of the pupils would indicate that physically they are generally well cared for.

The schooling of the boys is entrusted to eight women, one of whom is a teacher of sloyd and another of drawing and modeling. Although the conditions are not ideal, the number of teachers allows a fair degree of grading and an excellent opportunity to do good work.

The teaching I saw was chiefly in arithmetic. The method of teaching was modeled after that of the public schools, — in some respects the method that makes education distasteful to fairly bright pupils in the public schools, if not the method from which these pupils had fled. Indeed, the teachers all seemed to have the idea that these pupils must be kept in line so that they might go back into the public schools again.

The common school instruction was supplemented by one lesson a week in sloyd and one in drawing and in modeling clay, — an amount of time too great to waste and too little to do much good. The accommodations for the sloyd are very limited and inconvenient. The character of the work is not so good as what I have seen at Chelmsford, yet the boys like this work, what they get of it, better than they do their other school work.

It seems to me that the treatment of these boys should be different both as to subjects of study and methods of teaching from that of boys in the public schools. The elements of their instruction should be, in larger proportion, the cultivation of good physical and moral habits, training to manual dexterity, and the learning of things that appeal more largely to the emotions and to character. The

teachers were all emphasizing the importance, and properly enough, of "teaching the boys to think;" and they were using the explanation of problems in arithmetic to accomplish it. It seems to me, however, that with boys of this kind it is of still greater importance to lead them to feel and to do.

It seems fitting that the boys of the Parental School should return to the public schools when they can do so with profit to themselves and without injury to the schools. Does this really require, however, that the course of studies in the Parental School shall closely follow that of the public schools? More manual training, more of learning through applications, less of bookishness,—is there not a better chance here to capture the boy's vagrant interest, to favor in him the much-needed work habit, to get him into shape for a resumption of his place in school?

The foregoing comments have, in large measure, been anticipated by the Boston authorities. There are three buildings for the Parental School, with accommodations for forty boys in each. An additional building is needed so as to release the central one for exclusively school purposes. Until this is done, says Superintendent Seaver, the work of the Parental School cannot be carried on in a proper and effective manner. One of the reasons urged for such extension of accommodations is that opportunity may be afforded for suitable manual training exercises. The grounds and the garden give employment to the boys in the proper season when the weather is favorable; but in bad weather and in winter time much more indoor work is needed for them.

THE TRUANT SCHOOL OF ESSEX COUNTY AND THE TRUANT SCHOOL OF BRISTOL, NORFOLK AND PLYMOUTH COUNTIES.

Educational Conditions.—The truant school for Essex County is at Lawrence; for Bristol, Norfolk and Plymouth counties, at Walpole. The agent who visited these schools devoted his report largely to their educational conditions, treating them together. From this report the following selection is made:—

The boys in both of these schools showed evidences of being well cared for; that is, they were neat and clean, appeared well and properly fed and were comfortably clad. In respect to clothing, the pro-

visions seemed rather better at Lawrence than at Walpole, but satisfactory enough at either place. Suitable time for healthful recreation and play was allowed.

The special moral and religious influences, too, with which the boys in both institutions were surrounded, seemed to me highly commendable. The daily work tended to form industrious habits, and every evening the leisure hours between supper and bedtime were spent in the schoolroom with exercises literary or musical, or of some other elevating character. At Walpole, while the boys are at their meals, the superintendent or some one reads to them. I was told that the selections they liked best to hear read were accounts of the late war, especially those that described the killing of the Spaniards. It is possible that this taste was a little overfed.

On Sundays, at Walpole, the boys attend service in the churches of the town, going in a body first to one and then to another. It may be queried whether floating about in this way is best for boys of this age and character. At Lawrence religious services are held in the school.

In both of these institutions the provisions for the schooling of the boys seem to me to be inadequate and unsatisfactory. The prime cause of this, moreover, is not in the teachers, but in certain conditions that make desirable results impossible, let the teachers be who they may. Here, to illustrate, are two schools of forty-six and forty-seven pupils respectively, each with one lady teacher. These pupils are in all stages of progress, from beginning to read to the work of the seventh or eighth grade of the public schools. Here you have all the difficulties of the district school of all grades, with this additional difficulty, that, while the district school is made up of pupils three fourths of whom are bright and ambitious to learn, the pupils in these truant schools are boys whom the teachers of the graded city and town schools, with all their superior advantages, have not been able to reach and interest. These boys are not intellectual, or, rather, they are not intellectual along the usual lines of public school instruction. They are in the truant schools largely because they did not like either what was offered them in the public schools, or the way it was offered, or both. To make the truant school, then, an imitation of the public school, will, it seems to me, result in a failure to put into the life of the pupils much that will be to them of permanent interest or influential for good. I cannot see how many of them can be reformed by definitions of nouns, adjectives, minuends, quotients, and so on.

Superintendent Swan of the Lawrence School says, and his statement is confirmed by Superintendent Morse of Walpole, that the boys without exception would be willing to do the hardest drudgery on

the farm, if thereby they could escape the study of the schoolroom. It seems to me, therefore, that the instruction given in the truant school should differ in some respects from that of the public schools; and, where it is similar, it should be presented differently; that is, it should be in a large measure manual training, as the character of most of these boys can be reached more effectively through their fingers than through their heads; and their intellectual training should be by simple, bright, interesting and inspiring mental work, adapted to awaken their sluggish faculties. In suggesting more manual training for these boys, I do not mean to belittle any efforts for their intellectual education. But the intellectual education that does not rest on habits of industry and morality is as likely to be an evil as a good. Merely to teach these boys to read gives them access to much that is vicious as well as to much that is elevating. Which will they be likely to choose?

In neither of these schools is there anything that can properly be called manual training. At Lawrence there is the housework, the farm work in summer, and at other times chair-bottoming. These are good so far as they go, but furnish very little training for future usefulness. So far as the farm work fits these boys to become farm hands, it fits them for an occupation in which they may find employment five or six months in the year, and leaves them to become idlers and tramps the rest of the time. At Walpole there is practically only the housework to do, and the school is practically nothing more than a mild form of imprisonment, to keep the boys out of mischief till their faculties become more mature.

With manual training the conditions of the school proper would be much improved. The school could be divided, and, one section being in the workroom while the other is in the schoolroom, the teacher would have fewer at one time to do police duty over and keep busy while she is hearing a class recite.

One thing that greatly hampers the usefulness of these schools is the shortness of the time for which the boys are too frequently sentenced to them, that is, six months or so, — a time altogether too brief for good influences to produce results; and, even when the sentence is longer, the judge's pardon, obtained by parental entreaty or for some reason other than the boy's welfare, summarily ends the good work.

To return to the day schools in these two institutions, I have refrained from special criticism of them, because, as I have said, conditions preclude the possibility of their doing very satisfactory work. The teachers are estimable young women, who are doing their best, under adverse conditions, for the welfare of their pupils.

At Lawrence the teaching of arithmetic was especially good. The

excellent device had been adopted in the same school of giving each boy a memory gem, containing some moral sentiment. Good poetical selections were also memorized, such as "The Landing of the Pilgrims," by Mrs. Hemans. Outside of text-books, which were, in some cases, too difficult for the pupils, the schools were scantily supplied with resources for good teaching. For example, at Lawrence, my request for a map brought out a torn and antiquated wall map of the United States,—the only one in the possession of the school.

To sum up my impressions, it seems to me :—

1. That the moral and good home influences with which the superintendents of the schools are surrounding the boys will save many of them from evil lives.

2. That more of them could be saved, if the instruction were more wisely adapted to their needs, and they could be kept in the school long enough.

3. That in the minds of those having the schools in charge, excepting the superintendents and those under them, the reformation of the boys is apparently subordinate to economy.

Both at Walpole and at Lawrence close and successful attention is reported to be paid to all matters involving cleanliness, neatness and sanitation. Both schools apparently make as good use of their buildings and grounds as the conditions permit. In short, the interior business management seems to be careful and sound. Separate treatment of these schools, with a fuller account of each, is desired for the next report of the Board.

HAMPDEN COUNTY TRUANT SCHOOL.

The Building and the Land.—The truant school is in Springfield. The building is a large three-story brick house. It is used as a residence by the superintendent, his family and the help. There is a schoolroom on the second floor. The sleeping rooms for the boys are on the third and fourth floors. The building is neat and clean from basement to attic. It is not a modern structure, but is reasonably well appointed and convenient for an old house. There are ten acres of land,—sandy soil, of little productiveness in very dry seasons. Crops of hay, corn and garden products for the past two years have been good. The boys have opportunities for working in the field or garden.

The Boys committed. — The number of different pupils from Nov. 20, 1897, to Nov. 20, 1898, was 44. Of these, 15 had been discharged at the time the school was visited by an agent of the Board. Of those discharged 1 was committed for six months, 10 for twelve months, 3 for eighteen months and 1 for twenty-four months. Thirteen were discharged at the expiration of their sentences and 2 before expiration by order of the court. Of the 29 left in the school, 3 were committed for six months, 1 for nine months, 18 for twelve months and 7 for twenty-four months. Three of them were ten years old, 4 eleven years, 3 twelve years, 8 thirteen years, 8 fourteen years and 3 fifteen years.

Of these 44 inmates, 16 came from Holyoke, 17 from Springfield, 4 from Pittsfield, 3 from North Adams, 3 from West Springfield and 1 from Palmer. Of the 23 towns and cities in Hampden County, only 6 are represented in the truant school. Is there more truancy relatively in these 6 places than in the remaining 17, or is the law better enforced in them? Undoubtedly there are some towns in which, under the wise management of teachers, parents and school officials, no truancy exists. In other towns a wholesome fear of commitment to the truant school keeps incipient truancy in check. There must be left, however, some towns in which, for various reasons, the attendance laws are not enforced, and such cases of truancy as exist go unrestrained.

Educational Conditions. — The school that is conducted in connection with the institution is well spoken of by the agent who visited it. The schoolroom has desks for 30 pupils, a table or bench for manual training, some apparatus and a small but well-selected library. The only ventilation, however, is by windows. The teacher has experience and ability. She handles the boys judiciously. It was noted that she keeps informed about the Springfield schools and attends the meetings of the Springfield teachers. The order of the boys, both in the schoolroom and about the premises, gave a favorable impression. It is made an important point that the boys should learn to govern themselves. They are given considerable freedom. Running away is of rare occurrence. Some pains is taken to follow up the record of the boys after their

discharge, — an exceedingly important thing to do, because the wisdom of having truant schools does not turn wholly on relieving the public schools and the towns of burdensome cases ; it turns in part upon the success of these schools in saving such cases to useful and honorable citizenship. Some of the boys discharged certainly do better, but not all. One of the boys now in the school is there for the fourth time.

Suggestions of Improvement. — More land and of a better quality seems to be one of the needs of the institution.

Provision should be made for a full and serious manual training course. This would require a separate shop. The present work, good in its way and as far as it goes, is chiefly knife work, and taken in the schoolroom.

The ventilation of the school and sleeping rooms is primitive, — by means of doors and windows.

It is understood that the question of larger and better accommodations has already been raised. Although the present building and grounds are made to yield about all they are capable of yielding for the comfort and welfare of the boys, they fall short of the steadily improving standards of the times for such things.

Springfield naturally contributes a relatively large number of children to the truant school. The following summary, from the report of the Springfield truant officer, shows impressively how large a part of his work is of a preventive character. Moreover, it reveals the varied and, to some extent, the palliating circumstances under which some of the illegal absences occur.

Number of visits to manufacturing and mercantile establishments, .	36
Number of children found illegally employed,	34
Number of visits to school buildings,	1,347
Number of cases reported from schools,	3,221
As follows: for absence, 2,718; for truancy, 452; for not attending any school, 13; for tardiness, 38.	
Number of visits to homes,	4,029
Divided as follows: on account of absence, 3,277; of truancy, 491; of non-attendance, 225; of tardiness, 27; of illiterate minors who were employed but not attending evening school, 9.	
Number of children found about the streets,	723
Upon investigation it was found that 477 of these were absentees, 126 were truants and 120 were not attending any school.	

Number of above children taken to schools or homes,	114
Of these, 44 proved to be absentees, 60 to be truants and 10 to be children who were not attending any school. In addition to the children taken to school, 6 absentees and 13 truants found on the streets were given notes to their teachers and sent to school. They all reported as quickly as could be expected, with the exception of 1 absentee and 2 truants.	
Number of children whose absences were investigated,	1,551
Number of parents warned that they would be prosecuted if they did not send their children to school more regularly,	15
Number of parents prosecuted for not sending their children to school regularly,	2
Number of children who were found not to be attending any school,	148
These have been disposed of as follows: 112 entered school; 6 presented certificates from physicians stating that they were not able to attend school; 10 proved to be over age; 2 who were nearly fifteen years of age were permitted to attend evening school; 2 others were allowed to attend business college; 9 left town; and 7 found during June are still unsettled. Some of the reasons given why these children were not attending school: in 82 cases the families had recently moved to town, and had been here from a few days to several months; in 11 cases the children left school before they were old enough; and in 6 cases the children were working. Nineteen of these children would never have gone to school again, and 20 of them were foreigners who could not speak English.	
Total number of individual children who came under the officer's attention during the year,	1,776

HAMPSHIRE AND FRANKLIN COUNTY TRUANT SCHOOL.

The Truant School a Farm.—The truant school for Hampshire and Franklin counties is in the town of Goshen. It is an ordinary hill-town farm of some two hundred acres, with the house, barn and other belongings in fair condition. Its accommodations for the living of the boys are simple, clean and neat. It has no schoolroom worthy the name, although the boys who are sent there constitute a little school, which must, of course, be taught in some room. The number of boys is so very small, it is claimed, that there is not much incentive to provide for them such school accommodations as are afforded in the larger truant schools. On the other hand, it is urged, if all the boys were sent to Goshen who ought to be there, for their own good as well as for that of the schools and communities which they now burden, the present school provisions

would prove to be wholly inadequate. When an agent of the Board visited the school it had no inmates. Indeed, there had been but three for the year, and they were all discharged Oct. 15, 1898. For a truant school to remain empty when truancy laws are enforced is a good thing; not so, however, for it to remain empty because such laws are not enforced.

Educational Conditions. — When there are any boys in the school, they are taught by the matron, who has had some experience as a teacher in rural schools. The work has to be largely individual, unless chance brings together boys of about the same attainments. The schoolroom was never intended for the purpose, being an ordinary small room of the house, lighted by a single window. The boys do more or less work about the farm, — planting, hoeing, gardening, haying and “doing chores.” A high-fenced enclosure is used by the boys when for any reason it is deemed desirable to confine them during their recreation.

Suggestions. — There does not seem to be much basis in the scant numbers attending the school for suggestions of extensive changes and improvements. Suppose, however, a fair enforcement of the truancy laws and a consequent larger attendance at the school. There can be no question that in such a case there ought to be a good schoolroom, properly equipped, and a teacher who should be able to give all of his or her time to the work of instruction, leaving the superintendent and matron free for the numerous duties involved in the general management.

No truant school ought to be regarded as properly equipped for the work of instruction unless it can do something for the boys in manual training. It is a fair question for consideration whether it is not the duty of Franklin and Hampshire Counties to provide such a school without reference to the meagre attendance.

WORCESTER COUNTY TRUANT SCHOOL.

Material Conditions. — The school is in Oakdale. It has about thirty-six acres of land, of which ten are under cultivation. Potatoes, squashes, onions and beans are raised for home consumption, and some for the market. Accommodations for

the boys are commodious and clean. The light, ventilation and sanitary conditions are good.

Educational Conditions.—The schoolroom, in all that respects size, desks, blackboards, heating, lighting and ventilation, is satisfactory. There is a fair supply of teaching appliances. The supplementary reading is of a good kind. The work done by the boys on the farm is of a useful kind; it seems to be strictly manual; that is, there is no formal teaching of agriculture or allied subjects in connection with it. There is no shopwork or manual training. The teaching in the school appeared to be of good average quality. The boys were orderly and attentive. The discipline of the school was good, but not severe. When rules are disobeyed, deprivation of privileges is a common penalty. Concert movements were noticed in many things, in washing the face and hands, in saying grace at meals, in beginning to eat, the boys responding to the tap of a bell or a pencil.

Commitments.—The number of truants at the school at the time of the agent's visit was 34, — 33 of them habitual truants and 1 an habitual school offender. Some of these boys were really violators of criminal laws, but were complained of under the attendance laws. Several large towns in the county, such as Athol, Blackstone, Gardner, Millbury, Northbridge, North Brookfield, Webster, Westborough and Winchendon, are not represented in the school; and the same may be said of most of the small towns. No systematic measures have been adopted for following up the record of discharged cases, to find out whether they are doing well or not. An instance was cited of a boy recently discharged who had no home to go to and no trade to follow. Another boy was present as a visitor at the time of the agent's visit, — a discharged case out of work, with no one to assist him.

Manual Training needed.—It would add to the efficiency and usefulness of this efficient and useful school, if the boys could have a generous progressive course in manual training. The protest that is justly made against the extreme bookishness of some of our public schools may be made with greater emphasis, should a similar bookishness dominate the instruction of any of our truant schools.

Work of the Truant Officers. — The truant officers of Worcester report that during the school year of 1896–97 they made 2,051 visits to the schools; investigated 2,334 cases of reported absence, of which 1,770 were found to be with excuse and 564 without; found 111 persons not attending any school; and arrested 20 persons, of whom 19 were committed to the truant school; 1 case was placed on file. Dec. 1, 1897, Worcester had 32 cases in the truant school.

The truant officer of Fitchburg reports, for the year ending Nov. 30, 1897, 803 cases of absence investigated, 55 truancy cases, 8 arrests for truancy, and one arrest for disobedience of school rules; with 3 cases committed to the truant school and 6 placed on probation. There were 3,767 visits made to the schools, and 482 homes and 100 mills were visited. One parent was tried and convicted for neglect to send a child to school, and the case placed on file.

Reports of truant officers in several of the larger places of the county indicate, as in Worcester and Fitchburg, that serious attention is given to the enforcement of the school attendance laws.

The school committee reports of the smaller towns of the county frequently make no mention whatever of the work of the truant officers.

MIDDLESEX COUNTY TRUANT SCHOOL.

Buildings and Land. — The school is located at North Chelmsford, just above the city of Lowell, and overlooks the Merrimac River. There are three buildings, two of them cottages or dormitories, each with its company of boys, its school-room, dining room, sleeping hall and other accommodations, and the third a kind of industrial building, where provision is made for laundry work, sloyd and kindred things. There are eighteen acres of land, eight of which are under cultivation. The rest is used for a playground, roads, lawns, etc. The grounds have been made useful and beautiful in many ways, all the work having been done by the boys, under supervision.

Working Organization. — To carry on the work of the school requires the following staff of officers and employees: a superintendent, an assistant superintendent and head matron, an

assistant matron, a caretaker of the boys, a laundry matron, a kitchen and dining-room matron, a sewing matron, a cook, a master in charge of the cottage building, a matron at the cottage building, a teacher at the main building, a teacher at the cottage building, a music teacher and a teacher of manual training.

Superintendent's Report.—From the report of Moses A. Warren, superintendent of the school, for the year ending Dec. 31, 1898, the following extracts are made:—

There were 93 boys in the school Dec. 31, 1897.

Admitted during the year,	. . . . .	64
Discharged during the year,	. . . . .	51
Remaining Dec. 31, 1898,	. . . . .	106
Average number for the year,	. . . . .	101

Of those committed, 50 were habitual truants, 12 had wandered about the streets, 1 had violated the rules of school and 1 was a neglected child. Of those released, 42 were discharged at expiration of sentence, 5 by order of the court and 4 on probation. Of the number committed, 48 could read and write, 4 could only read and 12 could neither read nor write.

The current expenses for the year amounted to \$15,857.99, or \$3.00 per capita per week. The amount collected and paid to the county treasurer from cities and towns for support of truants was \$8,954.26 and from sundry receipts, \$10.80; amount due from cities and towns, \$149.28; the total income was \$9,114.34. By act of the last Legislature, the amount charged cities and towns for support of pupils was cut from \$2 to \$1 per capita per week, reducing the income derived from this source by one-half.

The act also obliged the State Board of Education to visit the truant schools of the State, and annually report to the Legislature their condition. This act is heartily approved by your superintendent, as it gives us the benefit of advice and criticism from trained and experienced educators, putting us more in touch with the public schools of the State.

The family building, which was in process of erection at the time of my last report, was completed and occupied in March last. At the opening exercises there were present the committees on education and counties from the Legislature, and many invited guests. They were welcomed by your chairman, Levi S. Gould, and addresses were made by Hon. Alfred S. Roe, chairman of the committee on education, Mr. Bosworth and others. The building was completed within the appropriation, and is occupied by a family of 50 boys.

We close the year with 106 pupils, — a gain in number of 13 pupils for the year. In my opinion, the increase for the time to come will be at least ten per cent. annually, and the condition of additional room will soon have to be met. I recommend that the unoccupied land lying west of the school, and extending to Princeton Street, be taken by purchase or otherwise. It is needed for tillage purposes, and in the future, if it should be considered wise to add to the capacity of the institution, the extra space would be necessary. The land can probably be bought at a less price now than later, as, upon the completion of Princeton Street extension by the State Highway Commission, it will be put into the market for building purposes. It would not be for the best interests of the school to have land so near (within twelve feet of our buildings) built upon by others.

I would also recommend the erection of a central heating plant, with sufficient storage room for a year's supply of coal. At the present time the buildings are heated by a boiler in the basement of each. The saving in labor and fuel would be large, and a lower price for coal obtained could we purchase a year's supply, instead of, as now, having to take from time to time only the amount we can store.

We were enabled upon the completion of the new building to grade the schools. Another teacher was employed, and more time given to individual work. When you consider that eighteen per cent. of the children admitted during the year could not read a simple sentence, you will recognize the need of such work.

The health of the children has been uniformly good throughout the year. We have had but one serious case of illness, that of pneumonia, from which a good recovery was made.

Owing to the wet season, the crops upon our most productive land were largely failures, particularly root crops. A larger quantity of berries was raised than ever before.

The boys have been employed through the season in the necessary farm work, and in grading the ground around the new building. Many cubic yards of earth have been moved in wheel-barrows, gutters paved, ditches excavated, etc. If more land is not acquired, there will be but little outside work for so many boys after this year.

Classes in sloyd have been maintained throughout the year, with good results.

Our annual excursion day was celebrated by a boat ride to Nashua. All holidays have been observed in the usual manner.

Religious services have been held each Sabbath; Protestant services have been conducted by various clergymen, and Catholic services by Rev. J. J. Shaw of Chelmsford.

Ages of boys committed during the year :—

Between 3 and 4 years,	1
Between 7 and 8 years,	1
Between 8 and 9 years,	4
Between 9 and 10 years,	8
Between 10 and 11 years,	8
Between 11 and 12 years,	7
Between 12 and 13 years,	13
Between 13 and 14 years,	14
Between 14 and 15 years,	7
Between 15 and 16 years,	1
<hr/>	
Total,	64

Committed from cities and towns during the year :—

Cambridge,	18
Lowell,	25
Somerville,	7
Newton,	5
Chelsea,	3
Malden,	1
Marlborough,	1
Waltham,	1
Woburn,	1
Revere,	1
<hr/>	
Total,	64

Birthplace of boys committed during the year :—

Massachusetts,	41
Maine,	1
New York,	2
New Jersey,	1
Connecticut,	1
Canada,	5
New Brunswick,	1
Nova Scotia,	1
Virginia,	1
Portugal,	1
England,	1
Italy,	1
Germany,	1
Prince Edward Island,	1
Unknown,	5
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Total,	64

Domestic condition of boys committed during the year : —

Father dead,	15
Mother dead,	10
Both parents dead,	4
Parents separated,	4
Total,	<hr/> 33

Nativity of parents of boys committed during the year : —

Father born in United States,	14
Father foreign born (including 11 in Canada),	43
Unknown,	7
Mother born in United States,	16
Mother foreign born (including 14 in Canada),	42
Unknown,	6

Educational Conditions. — The two main buildings have each a schoolroom, one for the lower division of the boys and the other for the higher. These schoolrooms are well heated, lighted and ventilated; they are commodious and attractive; the desks are good; the blackboards are excellent. The appliances for teaching are fair, — perhaps as good as can be expected at present. The same wisdom that dominates the school as a whole will doubtless insure a steady improvement here. The teaching is reported to be “fair to good in both rooms.” There is a commendable appeal, so far as it goes, to the self-activity of the boys. The impression gathered from a single visit leads to the suggestion that probably there ought to be a little less reliance in the text-book, a little greater stress placed on the practical side of the various studies. This trend towards a certain bookishness is a natural and common one in the public schools, for which teachers are not wholly responsible. It would help them to counteract this tendency if they were supplied by the public with an abundance of judiciously selected appliances to engage the activities of the pupils and afford them facilities for learning things in their applications. Far more even than in a public school is it important in a truant school to enlist the motor side in the educative process. The provision for manual training at North Chelmsford is an admirable one for this purpose, — a good room, a special teacher, benches where fifteen boys can work at a time, and all in con-

stant use. Moreover, it is gratifying to note that the general policy of the school is to make the boys do for themselves in all feasible directions. They wash their own clothes, they scrub the floors, they make their own beds, they do the gardening, they keep the grounds in order, they clear up the wild lands. All this they do under competent direction, the work being done by groups, and the work for a group being frequently changed, to give variety of experience and to break the weariness of monotony.

The discipline of the school seems to be excellent. No disorder of any kind was noticed, and no means of repression were visible. The behavior of the boys is carefully noted from day to day; but how much use is made of the record, how much the fear of a low mark and its consequences has to do with keeping the boys in order is not reported. There was no “dodging” or evasion on the part of the boys; they seemed natural and happy.

The Secretary's Visit.—The secretary of the Board visited the school recently, in company with members of legislative committees interested in the school. It gives him pleasure to confirm the favorable report of the agent. Everything was scrupulously neat and clean, in accordance with the everyday requirements of the school. The buildings are substantial and modern. The new building, in particular, illustrates how much can be done with the judicious expenditure of a comparatively modest sum. Extreme simplicity characterizes all the furnishings. It was not forgotten that this school is no place for luxury or extravagance. Chairs, tables, bedsteads,—all such things are substantial and durable, but reduced to their lowest terms. To one accustomed to the thousand and one things that gradually work into a home to make it attractive and come in time to be thought of as necessities, it is astonishing to note how they can be about all parted with in a home like this with manifest advantage to the cleanliness, health and comfort of the boys. The order, regularity, healthfulness and employment of life at this school ought to be the saving of most of the boys. When assembled to listen to addresses from various speakers the boys appeared to excellent advantage. Among them were many bright faces. Their singing was

hearty, expressive and enjoyable; it embraced a variety of styles and pieces; every boy of the sixty present joined in it; if they do their other work in school as well as they sing, they cannot but meet any reasonable school demands upon them.

Miscellaneous. — The superintendent endeavors to follow up the boys after their discharge. As most of them come from Lowell and Cambridge, he is able to keep informed about them through the truant officers and other officials of those cities. He thinks it is a conservative statement to make that 80 per cent. of the discharged cases get into no trouble.

Boys arrested on criminal charges are not sent to North Chelmsford. In some instances, doubtless, where crimes have been committed by truant boys, they are complained of as truants and not as criminals, and treated according. Several of the boys in the school have been before the courts on criminal charges, and either released or fined, to be subsequently complained of as truants.

Among the cities and large towns that have no truants in the school may be mentioned the following: Medford, Everett, Watertown, Reading, Concord, Arlington, Framingham and Natick. To these must be added about all the smaller towns in the county. Is it true that all these towns are free from truancy? If so, it is a most gratifying showing. If not so, it is a pertinent inquiry whether the attendance laws are duly regarded.

Truancy in Cambridge and Lowell. — Cambridge sends many truants to North Chelmsford. The report of the committee on truant officers for that city for the year ending June, 1898, gives the following facts: —

Number of children in the city between 5 and 15 years of age, as reported by the truant offices,	14,036
Number of absences investigated,	13,365
Truants, first offence,	607
Truants, fifth offence or more,	171
Truants and incorrigibles on probation by the court,	20
Truants and incorrigibles sentenced by the court,	22
Children found wandering about the streets, not belonging to any school,	131
Such children sent to school,	94
Visits to mercantile or manufacturing establishments,	190
Number of age and schooling certificates issued from the office of the superintendent of schools,	269

Lowell reports 1,646 cases investigated for the year 1897, of which 1,239 were absentees, 247 were truants, 31 were wandering about the streets, 6 were new scholars and 23 were juvenile offenders. Twenty-one persons were arrested, of whom 20 were sent to the truant school and 1 placed on probation. One hundred and nineteen cases were visited a second time and 62 a third time. Six hundred and eighty-one working certificates were issued and 111 were approved.

Lowell has a population of 84,367 and Cambridge of 81,643 (1895). They are the chief contributors to the county truant school. Both cities are evidently enforcing the attendance laws. No comparison of returns by their truant officers is likely to be fair, however, until it is known whether the basis is the same or not: until, for instance, it is known whether a "case investigated" in Lowell means the same as an "absence investigated" in Cambridge.

GENERAL COMMENTS ON TRUANT SCHOOLS AND TRUANCY CONDITIONS.

The magnitude of the field, the novelty of its problems, the small number of visits made by the agents, the scant time at the service of the secretary for his share in the work, — all these have put anything like an even and complete treatment of the several schools out of the question. It is believed that enough is known, however, to justify such favorable comments as have thus far been made, as well as such suggestions for school improvement as have been offered.

In reviewing this report, certain things appear to stand out with considerable definition, of which the following may be mentioned: —

1. *Wide Differences in Truant Schools.* — The truant schools of the Commonwealth show wide diversities of adaptation to their special work, from the school of Franklin and Hampshire counties, where an ordinary farm, without material change, is made to serve the purpose, to that of Middlesex County, which is the finest in the State, if not in the country. So far as any of them fall short of proper standards, it is due, as a rule, not to the interior management, which seems to be as efficient as the conditions will permit, but to the policy of the counties, as executed by the authorities thereof. If all were

as good as the best, the argument for State control would be shorn of some of its strength; but they are not all as good as the best, and not likely to be for a long time to come, if ever.

2. *The Need of Manual Training.* — A pressing need of the schools is provision for manual training, — a need that has been adequately met thus far in but a single school, — that of Middlesex County. The schooling, in general, should strongly appeal to the motor activities; it should be rich in facilities for learning through applications; there should be less of the strictly academic and bookish about it.

3. *Enforcement of the School Attendance Laws.* — Most of the cities and some of the larger towns are faithfully endeavoring to enforce the school attendance laws. Some of the smaller towns have no cases of truancy at all, or but rarely have them. Between these two classes there are undoubtedly delinquent towns, for whose delinquency the chief palliation lies in the reluctance of the authorities to enforce the law against friends and neighbors. Most of the illegal absenteeism of children is due, not to a truant disposition on their part, but to the neglect of parents. If the authorities shrink from prosecuting the parent for failing to send his child to school, they cannot with very good grace follow up the child who takes it into his head to stay away on his own account.

4. *Changes in the Truancy Laws.* — Towns do not seem to be generally aware that under the legislation of 1898 they may send truants to the truant school at an expense to the towns of only \$1 a week, instead of \$2 as heretofore. Whatever the cost to the town, however, no town is particularly anxious to increase its burdens by commitments for truancy. Towns should acquaint themselves with the new truancy legislation, because it has simplified in many ways the management of truancy cases.

5. *Girl Truants.* — The law does not make satisfactory provision for truant girls. This is no new discovery. The present provision was known to be unsatisfactory at the time it was made, but it seemed to be the only one feasible at the time. Under the theory of State control of the truant schools, one separate school for the relatively few truant girls of the State naturally occurs as a solution of the problem. Under the

theory of county control, it does not seem desirable to send two or three girls to a school where there are numerous boys, or to open as many separate schools for two or three girls each as there are schools for the boys. Girls may, indeed, be sent to the State Industrial School for Girls at Lancaster; but that school is of a marked reformatory character; it receives girls convicted of crimes; the sentences are for minority, though, under certain conditions, releases are possible. Judges hesitate to send an ordinary girl truant there; there is no other place to receive her; so that, practically, the girl truant is not likely to be reached and provided for until she becomes a positive criminal. Boston is discussing a parental school for girls. This city, for instance, according to a recent report, had 144 boys at the Parental School; 28 boys in the Marcella-Street Home, the home not having been fully discontinued; 9 boys out on conditional release; and 3 girls at the Marcella-Street Home, the home being used as a place of detention for girl truants. The proportion here of girl truants to boy truants is 3 to 181, or 1 to 60, or less than 2 per cent. of the whole number. At the same rate there would be an average of one girl to each of the county truant schools. It is quite certain that one good truant school for girls would answer for the entire State. Probably many more cases would be found if there were an opportunity to treat them properly, — enough, at least, to justify such a school. But such a school for the State would seem to require State action, so that discussion of the proposition would probably raise the entire question as to the wisdom of State control of the county truant schools.

I.

REPORTS ON SPECIAL SCHOOLS.

COMPILED BY THE SECRETARY OF THE BOARD.

SPECIAL SCHOOLS.

“Every institution for the instruction of the deaf, dumb and blind, when aided by a grant of money from the State treasury, shall annually make to the Board of Education such a report as is required, by sections sixteen and seventeen of chapter seventy-nine, of other private institutions so aided.” (Public Statutes, chapter 41, section 15.)

It is the policy of Massachusetts to make schooling as free for educable children whose defects forbid their attendance upon the public day school as for their more fortunate fellows.

The following is a list of the special institutions to which such persons may be sent upon recommendation by the Board of Education to the Governor:—

1. The American School, at Hartford (Conn.), for the Deaf, JOB WILLIAMS, L.H.D., Principal.
 2. The Clarke School for the Deaf, Northampton, Miss CAROLINE A. YALE, Principal.
 3. Horace Mann School for the Deaf, Boston, Miss SARAH FULLER, Principal.
 4. Sarah Fuller Home for Little Children who cannot hear, Medford, Miss ELIZA L. CLARK, Matron and Principal.
 5. Perkins Institution and Massachusetts School for the Blind, Boston, M. ANAGNOS, Director.
 6. The Massachusetts School for the Feeble-minded, Waltham, WALTER E. FERNALD, M.D., Superintendent.
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THE AMERICAN SCHOOL, AT HARTFORD (CONN.), FOR THE DEAF.

Number of Massachusetts beneficiaries during the school year 1897-98, . . .	68
Number in school from Massachusetts at the present time, . . .	70

REPORT OF THE PRINCIPAL.

The attendance during the year was the largest in nineteen years. In spite of serious hindrances, patient and earnest work on the part of teachers and pupils was rewarded with marked progress. Speech and lip-reading were carefully

taught, while the general mental development and persistent drill in written English were vigorously pushed.

Much has been said against collecting deaf children in large schools, and in favor of small day schools, from which the children can return to their homes each night. If all homes were ideal homes, if all parents were judicious in the management of their children, if they were not so prone to humor the whims and excuse and overlook the faults of their deaf children, there would be much force in the argument. But this is far from being the case. Many of the homes are not ideal. Many of the parents are too busy to give proper attention to their deaf children, who need so much extra attention to be adequately cared for. They are apt to be too indulgent. They say: "The child is deaf; I cannot talk with him and reason with him as with my other children; I fear I cannot make him understand, so I let him do about as he pleases. I do not restrain him, nor punish him for wrongdoing. I make the other children give up to him, because he is deaf." The consequence of such reasoning is that the child becomes a selfish, passionate little tyrant, unhappy himself and a plague to all about him. If he attends the day school, and there has some wholesome training, the good work of the day at school is largely counteracted at night by the indulgence or ignorant neglect of the home and the influences of the street.

In a well-organized school for the deaf the child is surrounded by those accustomed to deal with the deaf, and who can understand him and make themselves understood by him. They know where to make allowance for his deafness and where to make none. They will teach him to govern his temper and to respect the rights of others. They will train him to the habit of obedience. They will teach him that he must govern himself and be governed by the same rules and regulations as others; that he must take no license in consequence of his deafness; and a steady but kindly and sympathetic pressure is kept upon him out of school as well as in until habits are fixed. It is often surprising to see how quickly a child who has been accustomed to have his way about everything and mind nobody will become imbued with the spirit of the school and go along with little or no friction. The whole atmosphere of the place is

that of obedience, order and industry, and he learns a wholesome respect for authority.

Furthermore, a large school can furnish many facilities and aids which a small school cannot afford to supply, and it can always have a large proportion of skilful and experienced teachers, to be a help and a stimulus to all the rest. Then, too, children learn a great deal from each other in school and out of school. The older pupils get the news of the day and the progress of events from the newspapers and talk them over freely, while a group of younger children gather around and eagerly take in the drift of the discussion. Thus they constantly grow in knowledge and understanding. They learn to judge of the moral quality of certain courses of action, and they become independent and self-reliant. Under the supervision of teachers, hours of evening study can be enforced at the school as they cannot in the home, and so much greater progress can be secured, while careful supervision of their social cultivation is rationally developed.

While it is freely admitted that a school may become so overgrown as to become unwieldy, we are far within that limit. A good number of pupils is necessary to secure proper classification, without which satisfactory work cannot be accomplished.

THE CLARKE SCHOOL FOR THE DEAF, NORTHAMPTON.

REPORT FOR THE CORPORATION.

To the Massachusetts Board of Education.

The number of pupils for the past year was 159; of these, 128 were supported by the State of Massachusetts, 9 by Vermont and 10 by New Hampshire. There were 12 private pupils. A class of 4 was graduated in June. The interest on this occasion was centred in the exercises of the graduating class. An essay written by each member of the class was read by one of the teachers, and the class was examined in general French history by Miss Fletcher. There were, as will always be the case in such a class, differences in the distinctness of articulation and flexibility of tone. Each one of the class, if we may accept the report made by friends, had once been en-

duced with hearing, and had lost this faculty early in life. One became deaf at the age of two and one half years, one at three years, and two retained hearing for seven years. They had also been pupils of the school for differing periods, varying from four to ten years, although the pupil who had been in this school but four years had received instruction previously elsewhere. It may be said that their replies were distinctly intelligible to those of the audience near enough to hear ordinary tones, and that the impression produced, so far as the speaking is concerned, gave great satisfaction. The impression gained of the training of the class, as evinced by the accuracy of the replies and by the freedom of thought in the essays, was not less favorable.

The studies pursued by this class during the last school year were general history, literature, algebra, English, including grammar, current events and civil government. The number graduated may, at first thought, appear small in comparison with the whole number in the school; but it must be kept in mind that dulness sometimes accompanies deafness, and that sometimes it seems wise not to encourage the continuance of a pupil in the school, and that in favorable cases the pupil may remain for ten years. Under the statute of the State, pupils paid for by the Commonwealth, once accepted, cannot be removed from the school except with the consent of the proper authorities of the school or of the Governor of the State. This wise regulation, which prevents the removal of pupils by parents who may not easily understand how slow for the deaf child the process of acquiring speech must be, does not apply to pupils from other States. A comparison of the names of the pupils in the catalogues of the school for the years 1895 and 1897 shows that 27 names for 1895 were not in the school in 1897; 7 of these had been graduated. Of the remaining 20, 6 were from other States. Dividing the other 14 by two years intervening between the publication of the two catalogues, we have 7 pupils as the number actually lost for all reasons in each of these two years. There are 13 names in the catalogue of 1894 which do not reappear in the catalogue of 1895. Of these, 1 had been graduated, 2 were from other States, and of the remaining 10, 1 returned later to the school,

making 9 who were lost to the school in the year 1894-95. It will probably be a pretty exact inference from these comparisons that 7 or 8 pupils from the State of Massachusetts would be the average every year, who, by reason of physical infirmity or mental dulness, or any other possible cause, drop out of the school. Sometimes a withdrawal is allowed before the end of the full time of schooling, because the family to which the pupil belongs greatly needs the service which the pupil can render.

Miss Yale stated in her report for last year that, of the 25 entering in the autumn of 1896, 3 were found too deficient mentally to make it worth while to retain them after the first year; but I have her assurance that the loss of so many as 3 for this cause is very unusual in a single year. Assuming that the first year in the school would make it plain that possibly 2 of the new pupils would not profit by the instruction and would be consequently removed, we have the small number of 5 or 6, out of, say, 100 Massachusetts pupils, as lost to all the upper classes for all causes in the course of one year. Such a small percentage of loss is a strong testimony, not merely to the value of the statute, but also to the excellent watch and supervision of the children, and to the confidence felt by the teachers in the progress of their pupils.

Attention was called in the report last year to the larger amounts paid by the States of New York and Pennsylvania for the instruction of each mute child than is paid by Massachusetts for the instruction of each pupil in this school. I did not call attention to the fact that it had been made possible for Massachusetts to maintain and instruct in a pleasant home her mute children at such a low figure through the benevolence of one of her sons. The actual cost of keeping and instructing each pupil in this school in 1896-97 was \$282. Because of the generous foundation of Mr. Clarke, which, besides having paid for these buildings and grounds, produces an annual income at present, of upwards of \$15,000, the State of Massachusetts secures for her deaf children a comfortable home, loving care and patient and excellent teaching for \$82 less than the actual cost. For 120 pupils that represents a gift each year, from the munificence of one man, of about \$10,000. If we count

the number from Massachusetts for the last ten years as averaging only 100, the sum total of the value of this gift to the State for these ten years would be at least \$80,000. This does not include the interest on the investment in lands and buildings, representing at least \$200,000. The value of the land has been increased this year by the purchase of an adjoining lot at the price of \$5,000. If the interest on the money invested in the plant from the first is reckoned, as it fairly may be, it is within bounds to claim that, by the munificence of John Clarke since the founding of this school, more than \$250,000 has been actually expended for the maintenance, care and instruction of the deaf children of Massachusetts, for which no return has been made by the State.

By the death of Gardner Green Hubbard of Washington, the president of this institution for the first ten years of its existence, and until his death a corporator and ardent friend, the cause of oral instruction for the deaf loses one of its ablest and warmest advocates in this country. The following minute, adopted at the meeting of the corporation in March, and inscribed in the records, bears witness to the honor with which his memory will be cherished by his associates on the Board, and by all who love the history of this school and appreciate the great work it has already accomplished: —

The corporation of the Clarke School, at this their first meeting since the lamented death of their former president, desire to place on record their appreciation of his eminent services in the education of the deaf and in the establishment and management of the school.

Mr. Gardner Green Hubbard had been early in life led to regard the instruction of deaf children as much more important than most Americans considered it, and he therefore joined warmly in the effort made by the Board of State Charities in 1866 to establish a State school in Massachusetts. His own special work had been to encourage and support the small school of Miss Rogers at Chelmsford, in which oral instruction was given from 1865 to July, 1867. Our founder, John Clarke, signified through the Secretary of State to the Governor of Massachusetts late in 1866 that he was ready to endow a State school for deaf children. Governor Bullock early in 1867 recommended the General Court to charter such a school. As this was what Mr. Hubbard had long advocated, he became a most efficient and active auxiliary of Mr. Clarke and the State authorities in per-

suading the Legislature to accept the proposition. He was therefore named among the corporators in the act of incorporation, and was chosen therein first president, in which capacity he effected the adoption of the school of Miss Rogers as the model and nucleus of the new institution. During the ten years 1867-77 that he continued president, the policy of the school was firmly settled and the foundation wisely laid for its success in after years; and he continued, as an active member of the corporation, to promote its best interests throughout the twenty succeeding years. By his unexpected death, Dec. 11, 1897, we were deprived of a wise counsellor, a firm friend, a liberal and energetic associate in the task of extending and improving the best system of education for the deaf children of America. Distinguished as his position was among men of science and public spirit in other lines of activity, it was this field which he had early made his own, and in which he will be best remembered as a founder and benefactor, at least by his colleagues here and by the instructors and pupils of the Clarke School.

We rejoice that he lived to see the great and increasing prosperity of a cause which he took up when its friends were few and its resources small, always excepting the resource of able, courageous and enlightened champions like himself. Success was his rule, and fortunate was the enterprise to which he lent his hand. We lament the loss of a colleague so sagacious and so bold, a comrade so generous and so true.

Respectfully submitted,

FRANKLIN CARTER,
President.

Oct. 12, 1898.

HORACE MANN SCHOOL FOR THE DEAF, BOSTON.

Number of Massachusetts beneficiaries during the school year 1897-98,	. . .	121
Number admitted during the year,	. . . . .	21
Number of Massachusetts beneficiaries in the school Nov. 1, 1898,	. . .	115

The committee on the Horace Mann School present their annual report as follows: —

The last school year began Sept. 7, 1897, with 100 pupils, — 49 boys and 51 girls. During the year 16 pupils were admitted, 5 former pupils readmitted, and 7 left the school, making the number at the close in June, 1898, 114, — 55 boys and 59 girls.

The committee would record with much pleasure that at the close of the school year, on June 27, 4 pupils were graduated.

The class showed results of careful training, and the general proficiency of all of the pupils was evident. They were presented with the regular diplomas from the Boston school board.

The sewing classes have made their work fully as satisfactory, in material results, as in past years. The pupils have shown marked interest, through constant application and by doing all the work required. Thirty-six girls have received instruction. Last February, the classes were permitted to examine sewing done in the schools of several foreign cities. The girls displayed both intelligence and taste in the criticisms they made upon the work exhibited.

The sloyd department keeps up its usual interest and high standard of work. The number of pupils in woodworking was a few more than last year, each class numbering from thirteen to fifteen. The instruction was similar to that of past years, but enriched by a greater variety of models. These were selected by the instructor of sloyd, from the manual training schools of Europe, while abroad in 1897. To prepare the classes for woodworking, an elementary system in paper and cardboard was adopted. The models of the first year are of paper, of the other two years of cardboard. The exercises include cutting with scissors, folding, pasting, cutting with knife, half-cutting, binding, covering and lining, besides the work of mechanical drawing.

Lessons in typesetting and press work were begun in January. There were thirty-two pupils in three classes, one for each of the afternoons of Tuesday, Wednesday and Thursday. Some excellent work was done by the pupils. Many of the elementary language lesson papers, which must be specially prepared for the primary grades, were, by means of this department of the school, given to the children in printed form. Its usefulness as an important factor in the education of the children, as well as a practical means of self-help, is assured, and we ask that it may continue to receive the support it merits.

In October two classes of girls and one of boys were formed for instruction in cooking, and continued to meet once each week until the close of the school year. The course was practically the same as in the other schools of the city. The pupils were greatly interested and made commendable progress. The

results were as satisfactory as those reached by hearing children. The work of the boys was equal to that of the girls. They showed an unusual aptitude for the study, and their interest was constant. It is certain that many of the boys, with further training, can fit themselves for great usefulness in their homes, and become, by their knowledge of cooking and housework, skilful wage-earners.

Lessons in drawing were given to four classes during January and February, with an average of ten pupils in each class. They received one hour of instruction each week. The purpose of the method pursued is the development of an appreciation of beauty, and the power to create it in simple ways. Nearly all of the work was original design. The subjects were problems in form, and decoration of vases and bowls, mosaic patterns, placing plant forms within a given area, and pose drawing. Very good results were obtained, and the pupils were much interested in the lessons. The instruction to one class was continued until the end of the year.

An extensive exhibit, from the various branches of the manual training department of the school, was sent to the meeting of the National Educational Association, held in Washington, D. C., in the early part of last July. It consisted of the pupils' work in wood, paper and cardboard models, sewing, typesetting and cooking.

The committee gratefully acknowledge the generous offer of Dr. Alexander Graham Bell to furnish printed copies of lessons, prepared by the teachers of the school. The aid thus given to the work in history, geography and language has been of great value.

We are also indebted to Miss Louise Brooks of West Medford for the gift of a Christmas tree to the pupils of Grade I.

On the tenth of last November the committee received, with appropriate ceremonies, a bronze tablet to the memory of Francis Green, the first man in this country to advocate the "oral method" of instruction for the deaf. The tablet was presented to the Horace Mann School by the Boston Parents' Education Association for Deaf Children. Francis Green, as a native of Boston and as a pioneer of this important system, is thus rightly honored. It is fitting that his name should be

inscribed upon the walls of the school now devoted to the advancement of his cherished theory, and from the hands of a grateful posterity.

The committee discern with great gratification the positive advantages to the school from being under the supervision of the directors of such specialties as physical culture, drawing and cooking; the scope of the school is in this respect becoming wider and richer as the years of its beneficent work increase.

In closing this report, we desire to express our entire satisfaction with the present condition of the school. Its work is thorough, and its aims are for what is highest and best in education. It proves by concrete facts that deaf children should stand on the same footing in our public schools with those who hear. This is no longer a debatable theory. Hearing children have no advantages in modern education that may not be utilized by those who do not hear. There are no studies which time, patience and skill will not unfold to the deaf, for these are the essential factors in the best results in all of our schools. For similar results by the same essential conditions the teachers in the Horace Mann School are unfailingly pledged.

SARAH FULLER HOME.

The Sarah Fuller Home for Little Children who cannot hear* was founded and incorporated in June, 1888. It is for the purpose of giving a home, with care and instruction, to such little deaf children as are too young to enter the Horace Mann public school for the deaf, and also for those whose parents or guardians cannot give at home the preliminary instruction which the loss of hearing renders necessary. Of the 12 children in the home during the year, the oldest was four years and six months old at the time of admission and the youngest two years and six months. It is not the intention of the management to develop the home into a large institution for many children, but it is distinctly its ambition to improve the quality of its work, and thereby not only to benefit the immediate pupils, but also to make the home a model for similar schools elsewhere.

* The home is on Woburn Street, West Medford, within fifteen minutes walk of the station on the Boston & Lowell Railroad.

The receipts of the home from June 1, 1897, to June 1, 1898, including a balance of \$1,898.62 from the preceding year, were \$7,546.68. The money came from various sources, such as the contributions of friends; the income of the Sarah Fuller Home fund, the principal of which is now \$11,227; the income of the Ellen R. Dwight scholarship, the principal of which is \$5,000; the State of Massachusetts, and so on. The expenditures for the year were \$6,622.59, and the cash balance at the end of the year was \$1,124.09.

Mary H. Hayes reports in behalf of the executive committee of the home as follows: —

Looking back to our first records, we see that to-day we round out ten years of happy, fruitful labors; that to forty-four children, placed in our care for longer or shorter periods, this decade has offered the best we knew of help and instruction in their need. And, though time has brought improvements and new modes of effort in the natural development of this scientific experiment, we can see no vital mistakes in our past, have no reproaches to meet. Honestly have we lived up each year to the highest standard then known.

We have much for which to thank friends, both in material and moral support; yet, with the very unusual expenses accompanying a course of scarlet fever, added to the cost of making necessary sewer connections, our income became exhausted, and only the personal solicitations for help by our treasurer and others saved us from serious financial embarrassment. Friends rallied to our aid, and the crisis passed; but we still lead a precarious existence, and the anxiety and loss through contagious disease may come again. Though several of our most interested subscribers and members are gone, we hope to put this home on so firm a basis, make it so necessary to the Massachusetts school system, that no individual loss will check its course.

The Ellen R. Dwight scholarship fund has again received from Mr. Edmund Dwight a gift of \$1,000, making it now \$5,000.

The weekly lessons in articulation, or the elements of speech with ease and rhythm in their use, given by Miss Jordan, and those in language by Miss Adams, both teachers from the Horace Mann School, have been continued with great benefit to the children, who look forward eagerly to them, counting the days of interval; they have been repeated and enforced by Miss Clark in the intermediate time, save when the prevalence of whooping cough in the winter interrupted all such work during four months. This loss of time brought from the executive board the decision that for the present the visits of the children to their near homes for alternate Sundays should be discontinued.

Our severe experience of illness thus brought to the home has opened the very serious question, How far does the recognized value of such visits compensate their possible dangers?

During the year we have cared for twelve children, ten being our present and full number, and of these but two were new scholars. Five are now ready to pass on to higher schools, and applications for the vacancies have already been made. There has been some change in the personnel of the house, but we have occasion to acknowledge our obligation for warm interest and faithful application to duties undertaken and for united work to make the success which we recognize.

Life out of doors, with all its interests and new lines of activity, still continues a very important part of school life. Nothing is done or seen without its being made unconsciously a lesson; all nature is taken for a text-book, and these little minds are stretched open with unceasing care. On the piazza, blackboards and chalk are at hand, that the written word may fill out and fix the thought in its shell of speech. For the old law, "Unto him that hath shall be given," is not arbitrary, but comes from the very nature of things. We can only drink of the spring as we bring our cup to be filled. The senses are but half awake till the mind raises them that it may be fed through them. The little deaf child, before its interest in human communication has begun, looks with but half attention at people and their movements. Later, when the mind opens to teaching and he joins in the game of life, one of its players, there is often an intensity of watching, a straining to grasp what still eludes, that no other child requires or uses. This concentration of attention is a rare quality in hearing children, and for most of us is a lesson wearily learned with the first school discipline. It marks one line in which our children rank high as compared with others beginning a student course of labor. As a life habit there is hardly one more valuable.

I give a few extracts from the reports of Miss Jordan and Miss Adams, which have great value because of the wide experience of those teachers.

Miss Jordan notes the willingness to learn articulation on right principles, and speaks of the value of rhythmic as opposed to syllabic speech. This can be suggested to a child through feeling the vibrations of a musical instrument, a guitar having inadequately supplied the lack of a piano. Children absolutely deaf gain through this as much fluency and rhythm, to correct their labored utterance, as those possessing considerable hearing.

In speaking of the mental power developed through language teaching, Miss Adams says: "The children have acquired disci-

plined minds. When things go wrong, they look to their elders for a reason, and a good reason satisfies them. They expect to learn, their minds are receptive, their attention is under their control; they have learned the meaning of law, and expect to do a certain thing at a given time, irrespective of personal whim. The readiness with which they obey commands spoken naturally, their facility in taking new word-forms, the comprehension with which they watch teachers during comparatively long explanations, and their constant habit of looking to the lips for the reason of things, are a marvel to me. For them the word has become the unit of thought. They think in the English language, though probably not yet in sentences; but I believe the appearance of the written word or the feeling of the spoken word accompanies the image of the object, or the immaterial subject, in their minds. This mental gain is immeasurable. They also communicate their thoughts and wishes by speech, imperfect but yet spoken words, and by every such effort they bridge the gap between themselves and the hearing world. In each of these particulars the home children have great advantage over other deaf children of the same age who have not been thus taught."

And here let us urge the extreme and often unrecognized importance of making every effort to hold what a child who has once heard may keep of remembered speech and use of its organs.

With nothing to keep up mutual relations of thought with others, the very memory that there is such a thing fades; the throat, perhaps weakened by the illness which has closed the ear, grows unused to the niceties of obedience to the will; the restless tongue takes but the easiest positions; and a wonderful gift is thrown away, and must later be earned back by new and involved effort over long stretches of time.

We have had one very marked case where, by instant promptness in giving help, we have saved to a child part of her native gift, have held the shadow till it became a substance, and to an excitable little mind, exasperated by the sudden silence and remoteness of her accustomed world, have renewed the tie of brotherhood with her kind. Let no one put off the moment of help from skilled experience in such a case, for the loss is irreparable.

We go on, then, with courage through old ways to new; for we have an abiding faith in the value of our work, that it is worth great efforts; and in our workers, that in days to come many shall rise up and call them blessed.

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

The number of blind persons connected with the Perkins Institution at the close of the school year in September, 1898, was 251. This embraced 171 at school in South Boston, 67 at the kindergarten in Jamaica Plain and 13 in the workshop for adults. A further division gives the following result :—

Pupils in the boys' department,	82
Pupils in the girls' department,	76
Boys in the primary department,	9
Children in the kindergarten,	58
Teachers and employees,	10
Domestics,	3
Beneficiaries of Massachusetts at beginning of year,	147
Beneficiaries of Massachusetts admitted during year,	13
Beneficiaries of Massachusetts discharged during year,	21
Beneficiaries of Massachusetts at present time (Oct. 1, 1898),	139

The record of work in the several departments of the institution during the year shows a uniform and steady progress along every line. The same methods are employed which have been proved by continued experience to be most fruitful of beneficial results. These methods recognize the value of physical and manual training as important contributors to the development of mental power, and include instruction in the various branches of music as a necessary adjunct to the completeness of the education of the blind.

The trustees thus describe the work of the school in their report to the corporation :—

In order that the bad effects of the loss of sight may be minimized and that a reasonable approach to a fair standard of normal qualities may be secured, the education of the blind must be broader in its scope and far more wide-reaching in its aims than that of ordinary children. It cannot be confined to a prescribed and narrow circle of formal and informational studies. It requires more than this. It needs to act upon every side of the pupil's nature and to produce an all-round development,—physical, mental, moral and spiritual,—so that our graduates may be fitted to go out into the active world with such an intellectual, social and professional equipment as will

enable them to meet the responsibilities of life and to discharge wisely and honorably the duties of citizenship.

For the accomplishment of this purpose the educational ground covered by the institution must of necessity be very extensive, and the field of its operations cannot but be wider and more varied in some respects than that of the public schools.

Thus, in addition to a full course of literary and scientific studies, the curriculum of our school comprises a complete system of gymnastics, educational manual training and instruction in the principal branches of music.

Physical training has very properly become a prominent feature in the work of the school; indeed, in arranging the general plan of instruction we have made the proper physical development of the pupils the first consideration. Each scholar has been required to go through a series of bodily exercises in the gymnasium daily, and the beneficent results obtained from this practice speak eloquently in its favor and bear ample testimony to its value.

Manual training has been made a part of the prescribed course of study, and has continued to grow in favor with the pupils and to exert a most beneficial influence upon their hands and heads. The work of adapting the sloyd system to every grade of the school and of rendering it a valuable auxiliary to our scheme of education has been carried forward without interruption and with very satisfactory results.

The course of instruction pursued in the literary department has undergone such modifications and improvements both in the subject-matter and in manner of teaching as are calculated to promote intellectual development, give discipline, foster the spirit of activity and research, encourage application and train the mind of the pupil in the right direction. Steady progress has been noticeable in every class and in all the grades of the school from the lowest to the highest. This gratifying result has been brought about by earnest, hard and conscientious work.

Music has held its place of honor in the curriculum of the school, and its study and practice have been pursued with great eagerness and marked success. This art has special attractions for the blind, and they avail themselves earnestly of the exceptional advantages which the institution offers to them for its cultivation.

The gymnasium with its ample supply of appliances and apparatus of the newest and most approved patterns, the library filled with choice books in raised and ordinary print, the museum stocked with specimens and models of every description, the music and tuning departments thoroughly equipped with an immense collection of instruments of all kinds, the manual training rooms provided with a variety

of tools and machines, — all these add greatly to the efficiency of the work of the institution and render it productive of excellent results.

In the literary department there have been but few changes during the year, and, in consequence, nothing has hindered the carrying out of the established curriculum in a most satisfactory manner. The preparatory work for admission to colleges indicates a high-water mark from which no ebb is contemplated.

Mr. Anagnos, in his report to the trustees, thus speaks of the methods of instruction pursued in this department: —

Reflection and experience have led us to the conclusion that the value of the various studies included in our curriculum does not consist so much in supplying the pupils with a certain amount of information on different subjects as in the development of their powers of observing, thinking, reasoning, conceiving and doing, and in the cultivation of mental acumen. In accordance with these views, we have given prominence to methods of instruction which are purely scientific, and there has been a manifest effort on the part of most of the teachers to train the pupils to exercise their active powers, to become self-directing to seek and find, to investigate and discover, to plan and execute and to obtain clearness of thought and grasp of the subjects under consideration. In mathematics and natural sciences exact and comprehensive knowledge has been sought by means of suitable processes and supplemented by proper apparatus; while in geography, history and literature there has been a refreshing freedom from formal verbalism and the shackles of the text-book. A rational mode of teaching has been pursued in these studies, which has created a spirit of active inquiry among the scholars, aroused their interest in various topics and drawn out their powers. Our instructors fully realize that the pernicious practice of forcing the pupils to commit to memory the contents of the printed page and to repeat them glibly whenever they may be called upon to exhibit their learning is anything but education. They know that Montaigne's apothegm, *savoir par cœur n'est pas savoir*," is as true to-day as it was in 1580 when he wrote it.

Science, as taught in most schools by means of excessive use of the text-book, if it be harmless, possesses very little educational value or none at all. It overloads the mind with data and deductions which the latter cannot digest and assimilate. It tends to wither and dwarf rather than to nourish and fructify the youthful intellect. For this reason formal, didactic, authoritative instruction in the facts and

theories of science has ceased to have a place in our school. From the very start the pupils are taught by means of experiments, and are gradually and sympathetically introduced to the order of nature, and thus are inspired with an insatiable desire to become acquainted with truth. The advantage of beginning betimes this method is that the mind, by being early accustomed to view the universe as an infinite field of information and science, simply as a method for acquiring knowledge tested and proved by experience, is placed once and forever in the right relation and attitude to all questions demanding the exercise of thought.

The work of the musical department comprises in its scope everything which may serve to place the pupils upon a firm basis as trained musicians. Individual tastes and talents have due consideration, while a theoretical knowledge of music, a thorough understanding of instrumentation and practice in *ensemble* playing, as well as in *solo* work, unite in affording an ample opportunity for the full cultivation of those qualities which characterize the good musician and the efficient teacher.

Of this department the director says : —

This art, while on the one hand it contributes liberally to the development and discipline of the mind, on the other hand appeals to the heart and affects the feelings more directly and effectively than any other branch of study, and its refining and ennobling influence is felt throughout the school.

The department devoted to this art is complete in its equipment and in all its appointments, and affords superior advantages for the study and practice of music. Its main function is to promote the intellectual, moral and æsthetic development of the pupils. It provides them with every facility for acquiring technical proficiency in singing or in playing on several instruments, and at the same time it never loses sight of its chief objective point, which is to mould them into musicians. With this end in view, instruction of a high order is given to the pupils by competent teachers, collateral studies are open to them, a musical atmosphere is created around them, the horizon is widened, and the students unconsciously absorb much that will eventually prove of inestimable value in their own specialty.

Great attention has been given to the science of music, as well as to the allied subjects of the history of music, the biography of musicians, acoustics, æsthetics and the like. The pupils have been led to realize that the study of theory is of paramount importance to them,

and they devote themselves to it with great zest. The idea is constantly impressed upon them that the more they know of harmony, counterpoint, composition, and of the physiological elements of their favorite art, the broader, more thorough and varied will be their musical culture, the wider their artistic view, the deeper their appreciation of the classic works of the masters, and the greater their ability to impart to others a knowledge of the fundamental principles whereon the musical framework is based and from which the spirit of progress springs.

The department of manual training embraces a full course in sloyd, in knitting, sewing and wood work, upholstery, mattress making and the cane-seating of chairs. Some of the graduates find through this branch a means of livelihood which they could not gain through either literary or musical attainments, and to all it furnishes a course of instruction the value of which is manifest in increased manual dexterity as well as in mental activity.

In his report upon the work accomplished in this direction, Mr. Anagnos makes the following statement:—

This branch of education is of supreme importance to the pupils of schools of all kinds, but especially to those of the primary and grammar or intermediate grades. It not only trains the body to report on external objects to the intellect, through the senses, exactly and speedily, and to execute through its muscles, quickly, accurately and efficiently, the dictates of the will, but it has a direct and forcible effect upon the dormant areas of motor nerve cells in the cerebral region, awakening these to life and action. It helps one to choose the calling for which he is best adapted, and to find his real place in the world. It promotes the general development of the scholars, nurtures their creative and expressive powers, arouses their interest in the work of the human hand, teaches them the value and dignity of labor, and inculcates in them an appreciation of it.

In shaping our courses of manual training, as in all other branches of our work, we should have primarily in view the development of our pupils into complete men and women. Nothing less than this should be the aim and end of our plans; and, in order to be able to accomplish this purpose, we must first and above all employ such means and methods as accord strictly with the laws which govern the healthful growth of body and mind in children and youth.

Among the various forms of manual training now in use there is not one which seems to be so peculiarly adapted to the case of our

pupils and so admirably calculated to meet their special requirements in a very satisfactory manner as sloyd. Whether it is considered from a pedagogical or from a physiological and ethical standpoint, this system is in many respects superior to all others. Shooting forth as it does from the very same root from which sprang the philosophy of the kindergarten, it is based upon sound, rational principles, and aims at educational results. Through its graded and methodical exercises the interest of the pupils is aroused, and they soon learn to concentrate their attention on the object before them. At the same time habits of observation are fostered, intensity and accuracy of perception are promoted and a liking for exactness — which is strict conformity to truth and has a final result in morality — is nourished. In addition to these, the will and the judgment are strengthened; manual dexterity is unconsciously gained; application and perseverance are stimulated; the intelligence is quickened; habits of industry, order, cleanliness, economy and concentration are engendered; and the creative, constructive and executive faculties are simultaneously cultivated. Moreover, by means of manual training, combined with a series of rational, educational gymnastics, a harmonious co-operation of the powers of thinking, judging, comparing, reasoning and doing is attained, and co-ordination of the mental and physical actions and reactions is secured.

One of the greatest advantages derived from this branch of education is that it affords to the pupils the means, not only of clarifying their understanding and of developing their thoughts in a logical manner, but of expressing the latter by the work of their fingers in a concrete form, as well as by oral speech and by writing.

In the printing house the past year has been a busy one. The college preparatory work makes an ever-increasing demand for more advanced books and texts of classic authors, while blind readers all over the country are no less insistent in their call for general literature. The list of books which have been printed in line type during the past twelve months contains the following titles: Kingsley's "Hypatia," Francillon's "Gods and Heroes," Ginn's "Selections from Ruskin," Mrs. Richards' "Melody" and "Jim of Hellas," Pope's "Homer's Iliad," Seymour's "Greek-English Vocabulary," Riehl's "Der Fluch der Schönheit," Fillmore's "Lessons in Musical History."

The kindergarten is in a prosperous condition, and to the little children over whom its benign influences extend it seems a veritable paradise. All unconscious of any work in connec-

tion with the daily exercises of the school, they are led through the pathway of "learning by doing," opened for them by the genius of Froebel, to the fields of rational education.

At the beginning of the present year a new building was opened, and a class of nine boys, who have completed the course of training pursued at the kindergarten proper, was transferred to it. There they receive instruction in such branches as are taught in the primary grade, and also in vocal and instrumental music and in manual training, and are fitted to enter the school at South Boston, for which their preparation will be much more complete.

The education of the three children who are both blind and deaf has been carried on under the most favoring circumstances and with remarkable success.

Edith Thomas is the same sturdy, independent, honest worker that she was last year. She has been assiduously carving for herself, out of the rocky ascent, every foothold which she has gained in advance, and has earnestly done her best in the class to which she belongs and with which she has kept pace. Among her studies history continues to hold the foremost place in her interest, and national pride is one of her marked characteristics. Through her reading outside of school hours she augments her knowledge of the country and of her favorite heroes, among whom George Washington stands pre-eminent. Always desirous of being helpful, Edith has on several occasions given substantial proofs of her warm sympathy with the active charities of Boston, in behalf of which her skill in handiwork has been turned to good account.

Elizabeth Robin has been making good progress in her studies, and has shown a decided gain over the previous year in self-reliance and decision of character. The effects of these are far-reaching. They manifest themselves alike in her school work and in all her relations, social or educational, outside of the class room. The record of her mental growth is very satisfactory, while her sweet, loving disposition holds fast the many friendships which she has formed. After a happy summer spent among her kindred at her far-distant home in Texas she has begun the new school year in fresh vigor of mind and body, which promises well for her continued advancement.

Tommy Stringer is fast putting off the child and assuming the boy. As keenly alive to all possibilities for usefulness as any boy who is in full possession of all his senses, he makes his pockets a sort of repository for countless treasures in the form of strings, scraps of iron, nails and the like, with which he constructs many ingenious devices. His mechanical skill is often called into requisition for the repairing of locks, for the renewal of window cords or for any of the little household cares for which a boy may be very useful. His increased ability in these directions is one of the results of the splendid manual training which he is receiving. He shows the same advance in his other studies, while one of the principal things which he has acquired during the past year is a thorough knowledge of the Braille point system, that convenient method of writing which furnishes a mode of producing raised characters, read by the sense of touch and thus of the utmost value to the blind both in their work in the class room and in their private correspondence. Alert, earnest, eager and full of the joy of life, Tom is diligently performing the various tasks assigned to him, and is deriving immense benefit from the uncommon educational advantages which have been rendered accessible to him through the generosity of a large number of sympathetic friends.

THE MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED, WALTHAM.

While the Massachusetts School for the Feeble-minded is no longer required by law * to report to the State Board of Education, it is nevertheless so related, if not on its custodial side, at least on its school side, to the general educational policy of the Commonwealth as to justify recognition of its important work by the Board, as in former years. The trustees of the School for the Feeble-minded apparently take this view of the matter, as may be noted in the opening words of their report.

Here and there throughout the schools of the Commonwealth, cases of intelligence so low are found that their continued presence is a detriment both to the schools and to the unfortunate

* See section 26, chapter 433, Acts of 1898.

pupils themselves. The schools should be relieved of such children; the children need a treatment which the schools cannot give. In one or two of our larger cities the question is already earnestly discussed whether special schools for such cases should not be opened as a part of their public school system. The school department at Waltham is efficiently managed. In the dull minds of the pupils there are barriers, indeed, which no teaching skill can surmount. It is surprising, however, what patience, tact and skill can do for such clouded intellects. When schools of feeble-minded children under superb teaching surpass in all the outward signs of interest, life and progress schools of bright children under stupid teaching, what more impressive witness than this can there possibly be to the supreme importance to either class of the highly endowed and thoroughly competent teacher?

TRUSTEES' REPORT.

MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED,
WALTHAM, Nov. 29, 1898.

To the Corporation, His Excellency the Governor, the Legislature, the State Board of Education and the State Board of Insanity.

The trustees have the honor of submitting their annual report for the year ending Sept. 30, 1898.

The number of feeble-minded persons of all descriptions now present in the institution is 598. Of these 246 are supported by the Commonwealth in the school department and 69 in the custodial department. There are in the school department 15 inmates who are supported from the income of invested funds, the same being legacies and increase from such legacies. There are 212 inmates supported in the custodial department by cities and towns. There are 32 private pupils supported in whole or in part by their parents or guardians, and there are 24 beneficiaries of other States paying, as required by the statute, \$300 each per year.

The second building authorized under the resolve approved April 27, 1896, was completed and ready for occupancy in March of the present year. The new building, as designed, is occupied by adult females of feeble mind, and more especially by those who assist in the work of the institution.

We have received from the Commonwealth the annual appropriation of \$35,000, raised at the last session of the Legislature from \$25,000, for the instruction and support of pupils in the school de-

partment; also \$11,206.45 for custodial cases supported by the Commonwealth. We have also received from the Commonwealth and expended a special appropriation of \$3,000 for a new engine and boiler.

The current expenses of the year have been \$94,325.46, or \$3.24 per week for each inmate.

The school is in excellent condition. It was never in better condition.

On the 14th of September, just at the close of the school year 1897-98, died Samuel Eliot, LL.D., scholar, educator, philanthropist, the president of the Massachusetts School for the Feeble-minded for the last twenty-one years. Dr. Eliot was born in Boston, Dec. 22, 1821. He was fitted for college at the Boston Latin School, and was graduated at Harvard College in the class of 1839. Belonging to a family of high social standing and influence in the community for generations, and possessing ample means for his own support, he immediately began to fit himself for a life of usefulness to others. He was several years in Europe, giving much of his time to study, more particularly to the study of history, the science of education, and a subject then much occupying the attention of leading men in crowded foreign cities,—the amelioration of the condition of those in the lower walks of life.

On his return from Europe, in 1843, he organized a school for working men. In 1847-48 he was associated with Samuel G. Howe, John A. Andrew, Samuel May, Stephen Fairbanks and other leading philanthropists of the Commonwealth in organizing, at the expense of the Commonwealth, an experimental school, to be continued three years, for the instruction and training of idiotic and feeble-minded youth. The experiment was so successful that in 1850 the same gentlemen procured an act of incorporation, under the name of the Massachusetts School for Idiotic and Feeble-minded Youth, and in 1851 the school was reorganized on substantially its present basis as a continuation of the experimental school, with the same superintendent, the same instructors, the same pupils, the governing board consisting of eight trustees appointed on the part of the corporation and four trustees appointed on the part of the Commonwealth. Thus, owing to the labors of Dr. Eliot and those associated with him, all of whom he outlived, Massachusetts holds the high distinction of being the pioneer in this country in making systematic provision for the amelioration of the condition of idiots and the feeble-minded.

Dr. Eliot was one of the original trustees of the school, and he continued to hold that office until his death, with the exception of a few years while he was connected with Trinity College at Hartford.

He was also a trustee of the Perkins Institution and Massachusetts School for the Blind for thirty-five years, and for twenty years its president. It is not unlikely that he was turned to philanthropic work while he was yet an undergraduate at Harvard, during a visit made to New Hampshire at the invitation of Mr. Longfellow in a party that included Dr. Howe and Rufus Choate; for it was on this journey that Dr. Howe discovered Laura Bridgman. May not the young man then have decided upon the use to which he would put the five talents that had been given to him? Was not this the starting-point of a long life of almost unexampled charity? However this may have been, again and again must Dr. Eliot's experience in his old age with the even more wonderful Helen Keller have recalled to his mind his boyhood excursion in the New Hampshire hills, with such famous company.

Dr. Eliot was for forty years a trustee of St. Paul's School, Concord, N. H., and during the forty years made at least two visits every year to the school. He was for a short time professor of history in Trinity College, Hartford, and from 1860 to 1864 was president of that institution. He was master of the Girl's High School of Boston from 1872 to 1876, superintendent of the public schools of Boston from 1878 to 1880, and later for some years a member of the school committee of Boston. He was an overseer of Harvard College for a term of six years. He was long connected with the City Mission of Boston. He was president of the Boston Episcopal Society, one of the oldest, if not the oldest, charitable organization of the city. He was long a trustee of the Boston Athenæum, of the Boston Museum of Fine Arts and of the Massachusetts General Hospital. He was chairman of the board of trustees of the latter institution for more than twenty years, an office of no little labor. As such he had much to do with the moving of the McLean Asylum from Somerville to Waverley, including the raising of funds for such transfer.

For many years Dr. Eliot made it a rule, which was well observed, to give of every day, in philanthropic work or work closely allied to philanthropic work, as many hours as constitute the present working-man's legal day; and in later years he endeavored to give to such work half that time.

Our Massachusetts School for the Feeble-minded has had no world-renowned Laura Bridgman; here there have been no inmates whose struggles to overcome seeming unconquerable defects of nature, with the assistance of systematic teaching, have raised them in actual knowledge as well as reputation above most individuals possessed of nature's normal gifts. With our wards the intellect that soars above

absence of sight, of speech, of hearing, is wanting; there is little to excite enthusiasm; little to excite wonder. All the inmates are below the average level of human intelligence, many deep below that level. They are of different conditions of bodily health. A few are of great strength, and require all the more care because of feeble intellect. Many are of feeble body, puny and disagreeable to behold. It is an unattractive charity. Yet to it Dr. Eliot has given much of the labor of his life. He has seen the school grow from about 20 inmates in the experimental school to its present number of 600. During the first few years of the school under the act of incorporation there were about 50 pupils. When the school was moved from South Boston to Waverley there were only 200. A large part of this growth has been due to the labors of Dr. Eliot. For many years he was constantly before the Legislature and its committees, with written report and oral address eloquently pleading the cause of the feeble-minded. Rarely did he fail to obtain the grant for which he petitioned. He had much knowledge of the details of the school life. While he was yet associated with Dr. Howe, and in the earlier days of his presidency, he originated much in regard to instruction and training; he knew each child by name, its history, its peculiar defects and infirmities. In latter days, when the instruction and training of the feeble-minded has become a science to be acquired and followed as a profession, as he and his associate pioneers in the work foresaw it must, he has fully appreciated and commended the professional work of the men and women here engaged in it, largely selected by himself; while on the other hand, his commendation has been received as that of a man who knew whereof he spoke. The feeble-minded persons of the Commonwealth have lost their best friend.

FRANCIS J. BARNES,
ELIOT C. CLARKE,
ELIZABETH E. COOLIDGE,
JOHN CUMMINGS,
J. S. DAMRELL,
SAMUEL HOAR,
W. W. SWAN,
GEO. G. TARBELL,
ERSKINE WARDEN,
F. G. WHEATLEY,
CHARLES F. WYMAN,

Trustees.

SUPERINTENDENT'S REPORT.

From the report of Walter E. Fernald, M.D., superintendent, the following selections are made : —

	Males.	Females.	Total.
Number present Sept. 30, 1897,	313	191	504
Admitted during the year,	82	66	148
Whole number present,	395	357	652
Discharged,	29	7	36
Died,	15	3	18
Number present Sept. 30, 1898,	351	247	598
Average number present,	336	222	558
School cases admitted,	50	42	92
Custodial cases admitted,	32	24	56
Private pupils now present,	17	15	32
Massachusetts school beneficiaries,	161	85	246
Cases supported by income of invested funds,	10	5	15
Custodial cases supported by State,	36	33	69
Custodial cases supported by cities and towns,	106	106	212
Beneficiaries of other New England States,	21	3	24
Applications for admission during the year,	—	—	285

Of the 148 admissions, 92 were of school age and grade ; 31 were females over fourteen years of age, one of whom had borne one child and two of whom had borne two children each ; 11 were paralyzed or quite helpless ; and 6 were epileptics.

Of the 36 discharges, 20 were taken away by their friends for various reasons, 5 New England beneficiaries were discharged by order of the authorities of the States to which they belonged, 2 were discharged by order of the overseers of the poor of the towns in which they lived, 2 were transferred to the insane hospital, and 6 adult epileptics were transferred to the new State Hospital for Epileptics at Monson. . . .

There were 18 deaths during the year. Of these, 5 resulted from epilepsy, 2 from consumption, 2 from diphtheria, 2 from typhoid fever, and 1 each from acute meningitis, erysipelas, organic heart disease, acute Bright's disease, organic disease of the brain, septicemia following gangrene and gastric ulcer.

There have been 285 applications for admission during the year. Of this number we have been able to admit only 103, or 36 per cent. The number of applications the past six years have been as follows : —

1893,	183	1896,	164
1894,	199	1897,	192
1895,	164	1898,	285

This large number of applications emphasizes the existence of the feeling in the community that public provision should be made for a larger proportion of this class of defectives than now exists. Many of these applications were made by town authorities, superintendents of schools, physicians, and people interested in charitable and philanthropic work, rather than by the parents or immediate friends of the children themselves.

There is a growing feeling in this State that imbecile boys and girls must not grow up in the community without training and protection. Within the last few years we have noticed a marked change in the attitude of overseers of the poor toward this school. It is an unusual thing now for town authorities to object to the payment of board of a suitable custodial case.

The number present at the close of the year practically represents the full present capacity of the institution. We have once more reached the point where new cases can be admitted only as vacancies are made by the discharge or death of those now here.

The second of the new buildings authorized by the act of 1896 was completed and occupied March 17, 1898. To this building were transferred the older adult female inmates. The occupation of this building has enabled us to complete the reclassification and separation of our pupils according to their age and mental and physical condition, so that at the present time our pupils are better classified than at any previous period in the history of the institution.

The 598 inmates present at the close of the year are distributed in the different buildings as follows: at the boys' dormitory are found 150 improvable boys of the school grade, ranging from six to eighteen years of age. This group represents the highest type of the feeble-minded. All of these boys attend school and training classes, and are kept busy from morning till night. It would be hard to find a sturdier, noisier or happier set of boys anywhere in the world.

At the north building are 111 grown men of the custodial class. Many of these cases are stupid and untidy, and have to be dressed and undressed, and need to be cared for like an infant. Others are excitable and destructive, and need constant supervision and care. Of course these need and receive no instruction except the most elementary training in habits of decency, order and quiet. . . .

At the farm-house are 29 quiet, trustworthy males, from twenty to thirty years of age, who work upon the farm.

At the west building are 61 small boys under the age of twelve, and 93 females of various ages. All of these inmates are of very limited intelligence, many have untidy personal habits, some are partially paralyzed or otherwise helpless, and many require what is practically hospital care. These children receive careful training in

the way of teaching them to wait on themselves, to dress and undress, to feed themselves, in the use of the body, in attention to personal cleanliness and habits of order and obedience.

At the north-west building are found 81 adult females of the higher grade. Nearly every inmate in this building works regularly in the laundry, sewing-room, or at other domestic work in one of the other buildings. Many of these young women are graduates of our schools and industrial training classes, can read and write, and derive great pleasure from the various entertainments and social gatherings. The withdrawal of this class of cases from the other buildings and their segregation in a detached house, where they are not annoyed by the younger children when tired from the day's work, and where they can be given much greater freedom from obvious restraint, and treated more like normal grown-up people, has added greatly to their happiness and self-respect.

The brighter girls of school age and grade, 73 in number, live at the girls' dormitory.

The large number of young, teachable boys and girls admitted during the year made a very welcome accession to the school and training classes. In the school classes proper there are now 109 pupils. In the kindergarten and practical training classes there are 176 pupils. With the exception of the few helplessly idiotic children, every boy or girl in the school under nineteen years of age is in one of these classes, or in one or all the classes for practical training, sense training, or physical, manual or industrial drill, and is receiving what we believe to be the instruction best suited to his or her capacity and need. There have been no radical changes in the methods of training and education as described in detail in previous reports. . . .

The large tract of wild land for a permanent home for the trained graduates of the school, and for those too old for school training, the purchase of which was authorized by the Legislature, has not yet been selected, although the available territory has been carefully looked over, and the more promising localities are now being closely studied in detail. We hope to be able to select and purchase this land before January 1.

J.

EXAMINATION QUESTIONS

FOR

ADMISSION TO THE STATE NORMAL SCHOOLS.

JUNE AND SEPTEMBER, 1898.

EXAMINATION FOR ADMISSION TO THE MASSACHUSETTS STATE NORMAL SCHOOLS.

JUNE 23 AND 24, 1898.

I. — LANGUAGES.

The candidate will take English and *one only* of the remaining languages,—Latin, French and German. Time for the entire paper, two hours.

ENGLISH.

Reading and Practice.

1. Tell what books of the following list you have read : Milton's *Paradise Lost*, Books I. and II. ; Pope's *Iliad*, Books I. and XXII. ; *The Sir Roger de Coverley Papers* in *The Spectator* ; Goldsmith's *Vicar of Wakefield* ; Coleridge's *Ancient Mariner* ; Southey's *Life of Nelson* ; Carlyle's *Essay on Burns* ; Lowell's *Vision of Sir Launfal* ; Hawthorne's *The House of the Seven Gables*. Add to the list other books of literary merit which you have read.

2. Write briefly on *any two subjects* selected from the list that follows. The point here is not the extent of your knowledge about the selected subjects so much as your ability to say a few things about them in a simple, clear, orderly and correct way.

(a) Either of the following :—

The Wrath of Achilles.

The Death of Hector.

(b) Either of the following :—

Some Traits of Roger de Coverley.

The Coverley Witch.

(c) Either of the following :—

Some Account of Goldsmith.

The Vicar of Wakefield in Prison.

(d) Either of the following :—

“ My golden spurs now bring to me,
And bring to me my richest mail,
For to-morrow I go over land and sea
In search of the Holy Grail.”

“ God save thee, ancient Mariner,
From the fiends that plague thee thus !
Why look'st thou so ? ” — “ With my crossbow
I shot the Albatross ! ”

(e) Either of the following:—

The Battle of Trafalgar.
Pandemonium.

If the candidate, instead of writing as directed, offers an exercise book containing compositions or other written work done in connection with the reading of books from the prescribed list, and properly certified by the teacher, let the fact be mentioned under this number.

Study and Practice.

3. Tell what books of the following list you have critically studied: Shakespeare's *Macbeth*; Burke's *Speech on Conciliation with America*; DeQuincey's *Flight of a Tartar Tribe*; Tennyson's *The Princess*. Add to the list other books of literary merit which you have critically studied.

4. Take *one only* of the subjects (a), (b), (c) and (d) that follow, limiting yourself to the points suggested:—

(a) "The *terminus a quo* of this flight and the *terminus ad quem* are equally magnificent; the mightiest of Christian thrones being the one, the mightiest of Pagan the other. And the grandeur of these two terminal objects is harmoniously supported by the romantic circumstances of the flight."

Points to be considered: (1) Why the theme appealed to the author; (2) the truth and the fiction of the story; (3) the triple character of the enterprise as the author saw it; (4) the *terminus a quo* and the *terminus ad quem*; (5) the tragedy at the Lake of Tengis, or any other "romantic circumstance" of the flight.

(b) "Glamis thou art, and Cawdor, and shalt be
What thou art promis'd. Yet do I fear thy nature;
It is too full o' the milk of human kindness
To catch the nearest way: thou wouldst be great;
Art not without ambition, but without
The illness should attend it: what thou wouldst highly,
That wouldst thou holily; wouldst not play false,
And yet wouldst wrongly win: thou'dst have, great Glamis,
That which cries, *Thus thou must do*, if thou have it,—
An act which rather thou dost fear to do
Than wishest should be undone. Hie thee hither,
That I may pour my spirits in thine ear,
And chastise with the valor of my tongue
All that impedes thee from the golden round
Which fate and metaphysical aid doth seem
To have thee crown'd withal."

Points to be considered: (1) The speaker, and the occasion that prompts the speech; (2) *what thou art promised*,—the source, the nature and the effect of the promise; (3) the chief difference in character between Macbeth

and Lady Macbeth; (4) *the nearest way*; (5) *the illness should attend it*; (6) the reference in *that*, ninth line; (7) the antecedent of *act*, tenth line; (8) *the golden round*; (9) *fate and metaphysical end*; (10) the meaning in simple prose of the last sentence.

(c) Either of the following:—

(1) The prologue of *The Princess*,—its relation to the body of the poem, the picture it gives of the outing of the Institute, the occasion for Walter's question, "Where lives there such a woman now?" and the retort it provoked, Lilia's wish that led to the telling of the story, and features of the story that make it, in the poet's mind, a medley.

(2) Explanation of the expressions italicized in the following extract from the conclusion of *The Princess*:—

Yet how to bind *the scattered scheme of seven*
 Together in one sheaf? What style could suit?
 The men required that I should give throughout
 The sort of mock-heroic gigantesque,
 With which *we bantered little Lilia first*;
 The women—and perhaps they felt their power,
 For something in *the ballads which they sang*,
 Or in their silent influence as they sat,
 Had ever seemed to *wrestle with burlesque*,
 And drove us, last, to quite *a solemn close*—
 They hated banter, wished for something real,
 A gallant fight, a noble princess—why
 Not make her true-heroic, true-sublime?
 Or all, they said, as earnest as the close?
 Which yet with such a framework scarce could be.
 Then rose a little feud between the two,
 Betwixt *the mockers and the realists*;
 And I, betwixt them both, to please them both,
 And yet to give the story as it rose,
 I moved as in *a strange diagonal*,
 And maybe neither pleased myself nor them.

(d) Unexaminable elements in literature,—features of a literary work or of its influence upon you, or of both, that it is hard, if not impossible, to reach through examination questions. You might make a distinction, for instance, between the sort of things the examiner may get a knowledge of from the candidate's answers to the questions of this English paper, and the sort of things the examiner may be left in the dark about even though the candidate's answers satisfy the questions. Perhaps by referring to the passage quoted from *Macbeth* under (b) you can illustrate a point or two of what you say.

LATIN.

1. What Latin authors or works have you studied, and how much of each have you read? Have you studied French or German? If so, to what extent?

2. Take either (a) or (b), but not both.

(a) *Translate into idiomatic English:—*

Scio plerosque ita scripsisse, Themistoclem Xerxe regnante in Asiam transisse. Sed ego potissimum Thucydidi credo, quod et aetate proximus de iis qui illorum temporum historiam reliquerunt, et eiusdem civitatis fuit. Is autem ait ad Artaxerxen eum venisse atque his verbis epistolam misisse: “Themistocles veni ad te, qui plurima mala hominum Graiorum in domum tuam intuli, quam diu mihi necesse fuit adversum patrem tuum bellare patriamque meam defendere. Idem multo plura bona feci, postquam in tuto ipse et ille in periculo esse coepit. Nam cum in Asiam reverti vellet, proelio apud Salamina facto litteris eum certiore feci id agi, ut pons quem in Hellesponto fecerat, dissolveretur atque ab hostibus circumiretur: quo nuntio ille periculo est liberatus. Nunc autem confugi ad te exagitatus a cuncta Graecia, tuam petens amicitiam: quam si ero adeptus, non minus me bonum amicum habebis quam fortem inimicum ille expertus est. Te autem rogo, ut de iis rebus quas tecum conloqui volo, annum mihi tempus des eoque transacto ad te venire patiaris.”

(b) *Translate into idiomatic English:—*

Iamque adeo super unus eram, cum limina Vestae
servantem et tacitam secreta in sede latentem
Tyndarida aspicio: dant clara incendia lucem
erranti passimque oculos per cuncta ferenti.
Illa sibi infestos eversa ob Pergama Teucros
et poenas Danaum et deserti coniugis iras
praemetuens, Troiae et patriae communis Erinys,
abdiderat sese atque aris invisa sedebat.
Exarsere ignes animo; subit ira cadentem
ulcisci patriam et sceleratas sumere poenas.
‘Scilicet haec Spartam incolumis patriasque Mycenae
aspiciet, partoque ibit regina triumpho,
coniugiumque, domumque, patres, natosque videbit,
Iliadum turba et Phrygiis comitata ministris?
Occiderit ferro Priamus? Troia arserit igni?
Dardanium totiens sudarit sanguine litus?
Non ita: namque etsi nullum memorabile nomen
feminea in poena est, nec habet victoria laudem,
extinxisse nefas tamen et sumpsisse merentis
laudabor poenas, animumque explesse iuvabit
ultricis flammae, et cineres satiasse meorum.’

— *Aeneid II.*, 567-587.

FRENCH.

1. Tell what you have done in the study of French,—the time spent, the authors read, and so on. Have you studied Latin or German? If so, to what extent?

2. *Translate into idiomatic English:—*

Sectaires et philosophes, citoyens et soldats, parlement et peuple, tous, de gré ou de force, concouraient à grandir Cromwell, comme pour grandir avec lui; et les républicains de la cité de Londres, venus au-devant de lui pour le haranguer quand il rentrait dans leurs murs, se charmaient eux-mêmes en lui disant: “Vous étiez destiné à charger les rois de chaînes et à mettre leurs nobles dans les fers.” Aveugles, qui ne se doutaient pas que bientôt ces fers pèseraient sur leurs propres mains!

Cromwell recevait ces hommages et ces grandeurs avec une humilité calculée, qui pourtant n'était pas dénuée de toute sincérité. “À Dieu seul, disait-il sans cesse, appartient la gloire; je ne suis que son faible et indigne instrument.” Il savait combien ce langage convenait à son pays, à son parti. Il l'exagérait et le répétait sans mesure, pour complaire aux hommes dont il exaltait ainsi la confiance et le dévouement. Mais c'était aussi l'expression de sa propre et intime pensée. Dieu, sa puissance, sa providence, son action continue dans les affaires du monde et sur les âmes, ce n'étaient point là, pour Cromwell, de froides abstractions ou des traditions usées: c'était vraiment sa foi. — *Guizot.*

GERMAN.

1. Tell what you have done in the study of German,—the time spent, the authors read, and so on. Have you studied Latin or French? If so, to what extent?

2. *Translate into idiomatic English:—*

Immer gewöhne sich der Mensch, zu denken: “Was Gott schickt, ist gut,” es dünke ihm gut oder böse.

Ein frommer Weiser kam vor eine Stadt, deren Thore geschlossen waren; niemand wollte sie ihm öffnen. Hungrig und durstig musste er unter freiem Himmel übernachten. Er sprach: “Was Gott schickt, ist gut,” und legte sich nieder.

Neben ihm stand sein Esel, zu seiner Seite eine brennende Laterne um der Unsicherheit willen in derselben Gegend. Aber ein Sturm entstand und löschte sein Licht aus, ein Löwe kam und zerriss seinen Esel. Er erwachte, fand sich allein und sprach: “Was Gott schickt, ist gut.” Er erwartete ruhig die Morgenröte.

Als er an die Stadt kam, fand er die Thore offen, die Stadt verwüstet, beraubt und geplündert. Eine Schaar Räuber war eingefallen und hatte eben in dieser Nacht die Einwohner gefangen weggeführt oder getödtet. Er war verschonet. “Sagte ich nicht,” sprach er, “dass alles, was Gott schickt, gut sei? Nur sehen wir meistens am Morgen erst, warum er uns am Abend etwas versagte.” — *Herder.*

EXAMINATION FOR ADMISSION TO THE MASSACHUSETTS STATE NORMAL SCHOOLS.

JUNE 23 AND 24, 1898.

II. — MATHEMATICS.

The candidate will take the three subjects. Number of questions in all to be answered, eight. The full work is wanted. Time allowed for the entire paper, two hours.

ARITHMETIC.

Take either 1 or 2.

1. A clock loses 30 minutes a day. It is set exactly right at noon. When the indicated time by this clock is 10 P.M. of the same day, what is the correct time? Give your reasoning.

2. How many shares of 5 per cent. stock at 120 must be bought to yield an income of \$720? How much will they cost? Give your reasoning.

Take either 3 or 4.

3. The freezing and boiling points of the centigrade thermometer are respectively 0° and 100° ; of the Fahrenheit, 32° and 212° . The temperature of the blood is about $98\frac{1}{2}^{\circ}$ by the Fahrenheit scale; what is it by the centigrade?

4. Draw two diagonals from any corner, as A , of a cube whose edge is 4, to the extremities of an opposite edge, as BC . What is the perimeter of the triangle ABC ? Draw a diagram, lettering it properly and putting in the dimensions of the triangle.

ALGEBRA.

Take either 1 or 2.

1. If $y = \frac{1-z^2}{1+z^2}$ and $z = \frac{1-x}{1+x}$, express the value of y in terms of x , reducing that value to its simplest form.

2. When the smaller of two numbers is divided by the larger, the quotient is .2 with a remainder of .2. When the larger is divided by the smaller, the quotient is 4 with a remainder of 1. What are the numbers?

Take either 3 or 4.

3. A train travelling b miles an hour is m hours in advance of a second train which travels a miles per hour. In how many hours will the second train overtake the first? Discuss the result when $a = b$.

4. A sum of money at a given rate of interest for a given number of years yields, for principal and interest, a certain amount. Expressing the sum, the rate, the number of years and the amount by s , r , y and a respectively, —

(a) Write the equation for a .

(b) From the equation for a find y .

(c) Express in words the truth expressed in this value of y (that is, translate the formula for y into a rule).

(d) With the aid of the formula for y , find in how many years \$400 at 4 per cent. will be doubled.

Take 5.

5. The area of a square may be doubled by increasing its length by 10 feet and its breadth by 3 feet. Find the side of the square.

GEOMETRY.

Take 1.

1. Draw a line from the vertex of the right angle of a right triangle to the middle point of the hypotenuse.

(a) What relation does this line bear to the halves of the hypotenuse?

(b) Prove this relation.

(c) Frame two or three theorems on the basis of this relation.

Take either 2 or 3.

2. (a) What is meant by the locus of a point? Give an illustration.

(b) What is the locus of the vertex of a triangle of constant area and constructed on a given line as a base? Give the geometrical principle involved.

(c) What is the locus of the vertex of the right angle of a right triangle constructed on a given line as a base? Give the geometrical principle involved.

3. The right triangle ABC is right-angled at B . Draw BD perpendicular to AC . The lengths of the sides AB , BC and AC are a , $a+1$ and $a+2$ respectively. Answer the following questions in terms of a , and give the geometrical principle on which each answer is based: —

(a) What is the length of AD ?

(b) What is the length of BD ?

(c) What ratio does the triangle ABD bear to the triangle ABC ?

Take either 4 or 5.

4. Prove that a tangent is a mean proportional between a secant drawn from the same point and the part of the secant without the circle.

5. What is the area of a circle? Prove it by the method of limits.

EXAMINATION FOR ADMISSION TO THE MASSACHUSETTS STATE NORMAL SCHOOLS.

JUNE 23 AND 24, 1898.

III.—HISTORY AND GEOGRAPHY.

Time allowed for this paper, one hour.

1. If you have done any collateral reading in connection with your study of United States history, or have studied the history of any other country, make a statement to that effect, mentioning the books used, the extent of your work, and so on.

Take one number only.

2. *The Colonial Period in Massachusetts.*

(a) The Separatists and the Puritans,—how they differed in their attitude towards the established church, when and where they first made settlements, and what events in England finally checked their coming to Massachusetts.

(b) How the Puritans dealt with those whose opinions they condemned, with illustrations.

(c) The relations of the colonists to the Indians.

(d) The sway of Andros,—causes that led to it, the general character of it, and how it came to an end.

(e) Some characteristics or facts about the colonial period in Massachusetts not found in the provincial.

3. *The Constitution of the United States.*

(a) Some weaknesses or defects of government that led to the adoption of the Constitution.

(b) The problem of establishing satisfactory relations between the large States and the small in respect to their powers in Congress, and how the problem was solved.

(c) One or two powers granted by the Constitution to the United States, with reasons therefor.

(d) One or two powers denied to the United States, with reasons therefor.

(e) One or two powers denied to the States, with reasons therefor.

4. *The Rise and Fall of the Slave Power.*—Write a sentence or two on each of the following themes, with special reference to its bearing on the rise and fall of the slave power in the United States:—

- | | |
|------------------------------|------------------------------------|
| (a) The ordinance of 1787. | (f) The Kansas-Nebraska bill. |
| (b) The cotton gin. | (g) The Dred Scott decision. |
| (c) The Missouri compromise. | (h) The election of Lincoln. |
| (d) The Mexican war. | (i) The emancipation proclamation. |
| (e) The fugitive slave law. | |

5. *The United States and Spain.*—Write about the relations of the United States and Spain in connection with each of the following topics, touching, incidentally, geographical aspects of these relations:—

- | | |
|------------------------------|-----------------------------|
| (a) Florida. | (c) The Philippine Islands. |
| (b) The Louisiana territory. | (d) Santiago de Cuba. |

EXAMINATION FOR ADMISSION TO THE MASSACHUSETTS STATE NORMAL SCHOOLS.

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IV. — SCIENCES.

At the beginning of your paper tell briefly in what sciences you have done laboratory work, kept notebooks, etc., and to what extent. Under each science *take one number or topic only*, with its subdivisions. Time for the entire paper, two hours ; for each topic, twenty-four minutes.

PHYSICAL GEOGRAPHY.

1. *The Zones.*

(a) The boundaries of the zones, — what they are and how their positions are determined. Explain with the aid of a diagram.

(b) Two reasons why, though the sun is nearer to us in winter than in summer, our winter is colder than our summer.

(c) The seasons of the torrid zone, — what they are and how they are caused.

2. *The Agency of Water.*

(a) In wearing away the land, above ground and below, with explanations and illustrations.

(b) In transporting material and building up new lands, with explanations and illustrations.

(c) In favoring, changing or discouraging human industry through the foregoing processes, with illustrations.

PHYSIOLOGY AND HYGIENE.

1. *Respiration.*

(a) The structure of the lungs, and how it is adapted to the work that is done by them.

(b) How the blood is purified by respiration.

(c) How the air in close rooms becomes impure through respiration.

(d) Consequences of breathing impure air, and how they may be averted.

2. *The Microscopic Plants known as Bacteria.*

- (a) The service in nature which they render.
- (b) The relation they hold to fermentation, decay and disease.
- (c) How foods may be preserved against their ravages.
- (d) Hygienic precautions to reduce the danger of exposure to them.

PHYSICS.

1. *The Parallelogram of Forces.*—Suppose an attempt is made to row a boat at the rate of four miles an hour directly across a stream that flows at the rate of three miles an hour.

(a) Assuming that the velocity of the stream is uniform from bank to bank, determine the direction and velocity of the boat. Explain fully, referring to a diagram.

(b) Assuming that the velocity of the stream is three miles an hour at its centre only, but diminishes gradually and equally towards each bank, determine the general effect on the resultant motion of the boat. Would the boat, for instance, descend the stream as far as before? What sort of a course would it take? Explain fully, referring to a diagram.

2. *Gravitation and Weight.*

(a) The distinction between gravitation and weight.

(b) A discussion, in the case of a ball falling to the earth, of the ball's attraction for and motion towards the earth, as compared with the earth's attraction for and motion towards the ball.

(c) The distinction between the weight of a body and its mass, with illustrations to show how the one may vary when the other does not.

(d) The distance fallen and the final velocity of a body falling from a state of rest for four seconds.

3. *Electricity.*—Trace from beginning to end, through all the intermediate stages of its transformations, the energy that is developed from burning coal under a boiler until it is expended in moving, in lighting and in heating an electric car. Or, if the foregoing proves too difficult, describe in order, in the case of the telephone, the various transformations of energy from the voice of the speaker to the ear of the distant listener.

CHEMISTRY.

1. *Chemical Symbols and Equations.*

(a) Name each of the following: N_2O_5 , NaOH , Na_2SO_4 , CuCl , AgNO_3 .

(b) Write symbols for the following: oil of vitriol, lime, muriatic acid, common salt, the product of the combustion of hydrogen in chlorine gas.

(c) Write the chemical equation for the reaction that occurs when sulphuric acid is added to common salt.

(d) In the foregoing reaction, how many pounds of chlorohydric acid can be made from 100 pounds of salt (Na, 23; Cl, 35.5; S, 32; O, 16; H, 1)?

2. *Chlorine.*

(a) A method of preparing chlorine with the aid of MnO_2 , and the formula for the reaction.

(b) Characteristic properties of the gas.

(c) Its affinity for hydrogen, with one or two illustrations, and how this affinity is utilized in bleaching processes.

(d) A comparison of chlorine with two other elements of the chlorine group, in respect to analogous properties.

3. *Fermentation.*—Describe an experiment to illustrate fermentation in both its stages, giving an account,—

(a) Of the gaseous product of the first stage,—what it is and how its presence may be tested.

(b) Of the liquid product of the first stage,—what it is, its affinity for water, and how it may be separated, both in part and in full, from the water that contains it.

(c) Of the product of the second stage.

(d) Of the preparation of bread by means of yeast, and how it resembles the first stage of fermentation.

BOTANY.

1. *Leaves.*—Write briefly about leaves under each of the following heads, illustrating some of your statements with drawings:—

(a) The veining of leaves.

(b) Simple and compound leaves.

(c) Leaf arrangement on the stem, and how it is related to the branching of the stem.

(d) Peculiar forms and uses of leaves.

2. *Fertilization of Flowering Plants.*

(a) The organs of fertilization and their structure.

(b) The essential feature in the fertilizing process.

(c) Self-fertilization,—what it is and how it is often thwarted.

(d) Cross-fertilization,—what it is and agencies that favor it.

3. *Description of a Plant.*—Describe in botanical terms some of the characteristics of the plant submitted to you for examination, adopting the following order: (a) the stem; (b) the leaf; (c) the floral envelopes; (d) the essential organs.

EXAMINATION FOR ADMISSION TO THE MASSACHUSETTS STATE NORMAL SCHOOLS.

JUNE 23 AND 24, 1898.

V.—DRAWING AND MUSIC.

The candidate will take both drawing and music. Time for the entire paper, one hour.

DRAWING.

Take either 1 or 2.

1. Make a pleasing sketch from memory or imagination of a tumbler of good proportions and shape, centrally placed, below the eye, on a rectangular block.

2. Make two views or working drawings of a gate post. Its base is a plinth 4' square and 1' 6" high, on which stands a prism 3' square and 9' high. The prism is centrally surmounted by a sphere 3' in diameter. Draw to scale, indicating your scale and putting in the dimensions properly.

Take either 3 or 4.

3. Sketch from nature some twig or branch with leaves or flowers or both. Conventionalize the leaves or flowers or both, and use them in a centre design.

4. Draw two or three units of historic ornament, and name them. Show, by illustration as well as by description, how a border may be composed from one or more of them.

Take either 5 or 6.

5. Give any simple and rapid illustrations you please, from available objects about you (books, desks, vases, fruits, flowers, window views, etc.), of your proficiency in drawing.

6. Write about color under the following heads:—

(a) The six leading normal colors, with the six intermediate colors, in order.

(b) Hues, tints, shades, tones and scales of color,—definitions and illustrations.

(c) Harmony of colors, with illustrations from the flowers and the foliage of the buttercup, the white lilac and the red rose.

EXAMINATION FOR ADMISSION TO THE MASSACHUSETTS STATE NORMAL SCHOOLS.

SEPTEMBER 6 AND 7, 1898.

I. — LANGUAGES.

The candidate will take English and *one only* of the remaining languages,—Latin, French and German. Time for the entire paper, two hours.

ENGLISH.

Reading and Practice.

1. Tell what books of the following list you have read : Milton's *Paradise Lost*, Books I. and II. ; Pope's *Iliad*, Books I. and XXII. ; *The Sir Roger de Coverley Papers* in *The Spectator* ; Goldsmith's *Vicar of Wakefield* ; Coleridge's *Ancient Mariner* ; Southey's *Life of Nelson* ; Carlyle's *Essay on Burns* ; Lowell's *Vision of Sir Launfal* ; Hawthorne's *The House of the Seven Gables*. Add to the list other books of literary merit which you have read.

2. Write briefly on *any two subjects* selected from the list that follows. The point here is not the extent of your knowledge about the selected subjects so much as your ability to say a few things about them in a simple, clear, orderly and correct way.

(a) Either of the following : —

A parallel between Pope and Milton,—the times in which they lived, their religious views, their political sympathies, their character as men, their traits as writers of English, their originality, as shown in the *Iliad* of the one and the *Paradise Lost* of the other, or any respects in which resemblances or contrasts between them can be shown.

A parallel between Pope's *Iliad* and Milton's *Paradise Lost*.

(b) Either of the following : —

The Coverley Sabbath,—how Sir Roger promoted its observance.

The Coverley Hunt,—its author, how his work compares with Addison's, and one or two glimpses he gives of Sir Roger as a hunter.

(c) Either of the following : —

The Vicar of Wakefield, "simple in affluence and majestic in adversity."
Oliver Goldsmith,—his strength and his weakness.

(d) Either of the following : —

Two or three of Carlyle's views about Burns as a poet.
Two or three of Carlyle's views about Burns as a man.

(e) Either of the following : —

Hepzibah Pyncheon as a Shopkeeper.

The House of the Seven Gables,—some glimpses it gives of Hawthorne as a writer or a man.

(f) Either of the following : —

Sir Launfal and the Leper.

The Holy Grail,—Sir Launfal's vain search for it and where he found it at last.

If the candidate, instead of writing as directed, offers an exercise book containing compositions or other work written in connection with the reading of books from the prescribed list, and properly certified by the teacher, let the fact be mentioned under this number.

Study and Practice.

3. Tell what books of the following list you have critically studied: Shakespeare's *Macbeth*; Burke's *Speech on Conciliation with America*; DeQuincey's *Flight of a Tartar Tribe*; Tennyson's *The Princess*. Add to the list other books of literary merit which you have critically studied.

4. Take *one only* of the subjects (a), (b) and (c) that follow : —

(a) The sleep-walking scene in *Macbeth*, — the circumstances, the action of Lady Macbeth, the things she was impelled to talk about, the scene as a revelation of mental distress, the effect upon her attendants, the contrast between Lady Macbeth's words before the deed that disturbs her and her bearing after it, her husband's bearing before and after as compared with her own, other instances in *Macbeth* of the "false creations" of a perturbed spirit, Shakespeare's art in showing the workings of conscience, etc.

(b) Either of the following : —

(1) Burke's speech on *Conciliation with America*, — your method of studying it, some of the points or topics which you considered in connection with it, and the impressions you have gained from it of Burke as a

man and an orator. Indicate, in particular, whether, in connection with such study, you gave serious thought to such things as the essentials of argumentative composition, the laws of the paragraph and the relative effects of abstract and concrete statements; also whether you tried to find out for yourself, from your own analysis, the structure and order of Burke's plan, or relied for your knowledge of that plan on the analysis of another.

(2) First, sir, permit me to observe that the use of force alone is but temporary. It may subdue for a moment, but it does not remove the necessity of subduing again; and a nation is not governed which is perpetually to be conquered. My next objection is its uncertainty. Terror is not always the effect of force, and an armament is not a victory. If you do not succeed, you are without resource; for, conciliation failing, force remains; but force failing, no further hope of reconciliation is left. A further objection to force is that you impair the object by your very endeavors to preserve it. The thing you fought for is not the thing you recover, but depreciated, sunk, wasted and consumed in the contest. Nothing less will content me than whole America. Lastly, we have no sort of experience in favour of force as an instrument in the rule of our colonies. Their growth and their utility have been owing to methods altogether different. Our ancient indulgence has been said to be pursued to a fault. It may be so. But we know, if feeling is evidence, that our fault was more tolerable than our attempt to mend it; and our sin far more salutary than our penitence.

Points to be considered : —

(1) The foregoing passage from Burke's *Conciliation with America* is purposely set up in violation of a fundamental law of the paragraph. Show clearly wherein the violation consists.

(2) If you think the passage should be broken up or divided, how many divisions would you make, where would you make them, and why?

(3) What do you understand by unity in a paragraph? Illustrate from any paragraph you find in the foregoing passage.

(4) The passage purposely omits a few sentences from the original. On the other hand, Burke might easily have added a few sentences. Whether unity suffers or not in such cases is dependent on what? In what ways might a paragraph gain or lose through such changes and yet respect the law of unity?

(5) What do you understand by climax in a paragraph or a series of paragraphs? Illustrate from the foregoing passage.

(c) Any one of the following : —

(1) The songs between the cantos of *The Princess*, — the themes with which they deal, two or three characteristics common to them, how they differ in their spirit from the spirit shown by Princess Ida in her University, why they have a place in the poem, etc. Close your writing by quoting one of the poems from memory, or, at least, a stanza from one of them.

(2) The child in *The Princess*,—an episode or two in which the child is prominent, the influence of the child on “the crust of iron moods,” the ending of the story and the hand the child unwittingly has in that ending, how the child proves to be, in fact, as Tennyson himself says, the true heroine of the poem, and how the poems between the cantos bear out that view.

(3) Explanation of the ten expressions italicized in the following extract from *The Princess*:—

I ceased, and all the ladies, each at each,
 Like the *Ithacensian suitors* in old time,
 Stared with great eyes, and laughed *with alien lips*,
 And knew not what they meant; for still my voice
Rang false; but smiling, ‘Not for thee,’ she said,
 ‘O *Bulbul*, any rose of *Gulistan*
 Shall burst her veil; marsh-divers, rather, maid,
 Shall croak thee sister, or the *meadow-crake*
Grate her harsh kindred in the grass; and this
 A mere love-poem! O for such, my friend,
 We hold *them* slight; they mind us of *the time*
When we made bricks in Egypt.’

—Part IV., 99-110.

LATIN.

1. What Latin authors or works have you studied, and how much of each have you read?

2. Take either (a) or (b), but not both.

(a) *Translate into idiomatic English:—*

Cum esset Caesar in citeriore Gallia, crebri ad eum rumores adferebantur. Litteris item Labieni certior fiebat omnes Belgas contra populum Romanum coniurare obsidesque inter se dare. Coniurandi hae erant causae: primum verebantur ne ad se exercitus noster adduceretur; deinde ab nonnullis Gallis sollicitabantur. Hi Germanos diutius in Gallia versari noluerant et populi Romani exercitum hiemare atque inveterascere in Gallia moleste ferebant. Nonnulli mobilitate et levitate animi novis imperiis studebant. Ab nonnullis etiam sollicitabantur, quod in Gallia a potentioribus atque iis qui ad conducendos homines facultates habebant, vulgo regna occupabantur; qui minus facile eam rem imperio nostro consequi poterant.

Translate into Latin:—

There are in Gaul some very powerful men who commonly administer the government. They fear that under Roman rule they cannot so easily do this thing. Hence they are unwilling that the Roman army shall be led into their land.

(b) *Translate into idiomatic English :—*

Dividimus muros et moenia pandimus urbis.
 Accingunt omnes operi, pedibusque rotarum
 Subjiciunt lapsus, et stuppea vincula collo
 Intendunt. Scandit fatalis machina muros,
 Feta armis. Pueri circum innuptæque puellae
 Sacra canunt, funemque manu contingere gaudent.
 Illa subit, mediaeque minans illabitur urbi.
 O patria, o divum domus Ilium, et inculta bello
 Moenia Dardanidum! quater ipso in limine portae
 Substitit, atque utero sonitum quater arma dedere;
 Instamus tamen immemores caecique furore,
 Et monstrum infelix sacrata sistimus arce.

— *Aeneid II., 234-245.*

Tell the story of which the passage is a part.

FRENCH.

1. Tell what you have done in the study of French,— the time spent, the authors read, and so on.

2. *Translate into idiomatic English :—*

La nouvelle de la capitulation d'une armée anglaise devant les milices américaines produisit un grand effet en Europe. Elle décida la cour de France à traiter ouvertement avec les États-Unis.

Le Congrès américain avait reconnu de bonne heure la nécessité de chercher un appui et des secours au dehors. Silas Deane, puis Franklin, le représentèrent officieusement près la cour de Versailles, dont il s'agissait d'obtenir une coopération efficace. Franklin, déjà connu dans l'ancien monde par ses travaux scientifiques fut rapidement très populaire en France, et trouva le plus gracieux accueil auprès des grands comme auprès des écrivains, des philosophes et des savants. Il y avait dans tous les rangs de la nation un désir de revanche contre les défaites humiliantes de la dernière guerre, et ce sentiment faisait enflammer volontiers les gens pour la cause de populations qui voulaient devenir indépendantes de la Grande-Bretagne. L'entraînement fut irrésistible. L'occasion fut belle à tous les soldats de fortune. Les commissaires du Congrès étaient assaillis de demandes pour le service dans l'armée continentale : plus tard on fit quelque reproche à Silas Deane, même à Franklin, d'avoir trop aisément concédé grades, emplois, émoluments, à des étrangers qui ne rendirent point les services promis et furent parfois un sérieux sujet d'embarras.

— *Moireau.*

GERMAN.

1. Tell what you have done in the study of German,— the time spent, the authors read, and so on. Have you studied Latin or French? If so, to what extent?

2. *Translate into idiomatic English:—*

Als der Bürgerkrieg am schlimmsten wüthete, kam ein Farmer aus der Umgegend von Richmond zu Lincoln, um sich über die Verwüstungen zu beklagen, welche die Soldaten der Union begangen hatten.

“Ich kann mich mit diesen Kleinigkeiten nicht aufhalten,” sagte Lincoln, “zwanzig Präsidenten würden dafür nicht genügen.”

“Geben Sie mir wenigstens eine Zeile an den Colonel Quincy,” drängte der Farmer.

“Sie erinnern mich an eine kleine Geschichte,” sagte Lincoln, “die einem Lootsen auf dem Flusse Illinois begegnete. Das Dampfschiff, welches er lenkte, war mitten in gefährlichen Stromschnellen; seine ganze Aufmerksamkeit war auf sein Steuerruder gerichtet. Da fühlte er sich am Rockschosse gezupft. ‘Was giebt es?’ sagte er, ohne nur den Kopf zu wenden. ‘Herr Capitän,’ sagte eine Kindesstimme, ‘halten Sie doch das Boot eine Minute an, damit mein Ball, der mir ins Wasser gefallen ist, wieder herausgefischt werden kann.’”

EXAMINATION FOR ADMISSION TO THE MASSACHUSETTS STATE NORMAL SCHOOLS.

SEPTEMBER 6 AND 7, 1898.

II. — MATHEMATICS.

The candidate will take the three subjects. Number of questions in all to be answered, eight. The full work is wanted. Time allowed for the entire paper, two hours.

ARITHMETIC.

Take either 1 or 2.

1. Divide the greatest common divisor of 210 and 1,344 by the least common multiple of 7, 21, 28 and 56, and express the quotient decimally.

2. A man buys 400 tons of coal, each ton containing 2,240 pounds, at \$4.25 per ton. He sells it for \$4.25 per ton of 2,000 pounds. Express his profit first in dollars and then as a percentage.

Take either 3 or 4.

3. The entire number of pupils belonging to a school on Monday was 155. The only changes in membership during the week were due to three permanent withdrawals at the close of Tuesday's session and four permanent accessions at the beginning of Friday's session. The pupils in actual attendance on Monday, Tuesday, Wednesday, Thursday and Friday numbered 150, 146, 147, 149 and 148 respectively. Present these facts neatly in a tabular form, show the averages properly, and determine the percentage of attendance for the week.

4. Two boatmen row down a stream that is a mile wide, starting from the same point on the right bank. The first rows one mile in a straight line close to the right bank. The second rows diagonally in a straight line to a point on the left bank exactly opposite the point reached by the first. Now if the second boatman claims that he has not only rowed down stream as far as the first, a distance of one mile, but has, in addition, crossed the stream, a distance of one mile, which the first did not do, and therefore has rowed two miles, or a mile more than the first, is his claim sound or fallacious? If the latter, what is the extent of his error?

ALGEBRA.

Take either 1 or 2.

1. Simplify $a - [2b + \{3c - 3a - (a + b)\} + \{2a - (b + c)\}]$.
2. The sum of two numbers exceeds three times their difference by a and their difference is equal to one third of b . Find the numbers.

Take either 3 or 4.

3. The formula for the area of a circle is $a = \pi r^2$, a being the area, r the radius and π the ratio of the circumference to the diameter (3.14). From this equation find the formula for the diameter of the circle, and translate it into a rule. With the aid of the formula thus obtained work out the diameter of a circle whose area is 12.56 square feet.
4. Find the square root of $4x^2 + 9y^2 + 12xy + 16x + 24y + 16$.

Take either 5 or 6.

5. What number is that whose cube exceeds its square by twice itself? Prove your work with each of the two answers obtained.
6. Find the value of x in $\sqrt{x} - \sqrt{x-5} = \sqrt{5}$.

GEOMETRY.

Take 1.

1. The sides of a scalene triangle in the order of their lengths (the shortest first) are a , b and c . Its altitudes, when its sides are successively used as bases, are 2, 3 and 4.

(a) Draw the triangle with its three altitudes, attaching to the proper lines the values assigned them.

(b) Give three expressions for the area of this triangle.

(c) What relationship, if any, do you discover between these altitudes and their respective bases?

Take either 2 or 3.

2. Prove the relationship that a line dividing two sides of a triangle proportionally holds to the third side.

3. Find the mean proportional between 4 and 9, (1) by the algebraic method and (2) by the geometric method.

Take either 4 or 5

4. What is the measure of the angle made by a tangent and a chord intersecting at the same point in the circumference of a circle? Demonstrate.

5. Give the successive area theorems, without demonstrating them, that lead up to and include the theorem that gives the area of a circle.

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III. — HISTORY AND GEOGRAPHY.

Time allowed for this paper, one hour.

1. If you have done any collateral reading in connection with your study of United States history, or have studied the history of any other country, make a statement to that effect, mentioning the books used, the extent of your work, and so on.

Take one number only.

2. *The First Political Parties.*

(a) The Federalists, — why they were so named, the views or tendencies represented by them, and their sympathies in the war that raged between France and England.

(b) The Republicans, — how they differed with the Federalists in governmental policies.

(c) The Alien and Sedition laws, — what they were, the occasion for them, and how they contributed to the downfall of one of these parties.

(d) The most conspicuous of the early Federalists, with a brief account of him.

(e) The most conspicuous of the early Republicans, with a brief account of him.

3. *The War of 1812.*

(a) Causes of the war, — the trouble about seamen, the decrees of Napoleon and of England and our replies thereto, and how Napoleon deceived us.

(b) How the war affected the business and opinions of New England.

(c) Our operations by land as contrasted with our operations by sea, with one or two illustrations of the contrast.

(d) How the war continued after the treaty of peace was signed and why.

(e) Things gained or settled by the war.

4. *The Development of the United States as affected by Considerations of Geography.*— Point out under each of the following heads some phase of national development that is closely connected with or dependent upon it:—

- (a) Soil and climate as affecting productions.
- (b) The coast as related to commerce.
- (c) Inland waters as related to commerce.
- (d) Mineral resources as related to industries.
- (e) Sites of great cities as determined by natural advantages.

5. *Recent Historical Matters.*— Give a brief account of each of the following:—

- (a) The panic of 1873, — its causes and consequences.
- (b) The electoral commission, — the occasion for its existence and the work it did.
- (c) Specie payments, — what they are, why they were suspended, and how the government succeeded in resuming them.
- (d) Civil service reform, — the evils it aims to stop, and how it seeks to stop them.
- (e) The silver problem, — what it is, what led to its prominence, the two extremes of views as to the best methods of meeting it, and the present attitude of the government, as shown by its laws, in dealing with it.

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IV. — SCIENCES.

At the beginning of your paper tell briefly in what sciences you have done laboratory work, kept notebooks, etc., and to what extent. Under each science *take one number or topic only*, with its subdivisions. Time for the entire paper, two hours ; for each topic, twenty-four minutes.

PHYSICAL GEOGRAPHY.

1. *Rainfall.*

(a) The cause of rain, — watery vapor, the air's capacity for it, the dew-point, what dust in the air has to do with rain, etc.

(b) The trade-winds, — what they are, and whether they yield rain or not, with reasons.

(c) Rainless regions, — one or two instances, and why they exist.

(d) The equatorial rain-belt, — what it is, its position with reference to the equator, and its relations to seasons in the tropics.

(e) Some characteristics of an eddying storm.

2. *Characteristic Contrasts between North America and South America.*

(a) In respect to coast line.

(b) In respect to mountain systems.

(c) In respect to inland waters.

(d) In respect to climate.

(e) In respect to productions.

PHYSIOLOGY.

1. *The Skin.*

(a) Its structure, vessels, various forms, etc.

(b) Its powers of excretion and absorption.

- (c) How it regulates the temperature of the body.
- (d) How its action may be modified by heat, cold, burns, fright, etc.
- (e) Uncleanliness of the skin,—contributions to it from within and without, ways in which it affects health, the necessity of frequent ablutions.

2. *The Lungs.*

- (a) Some account of their structure.
- (b) The mechanics of respiration.
- (c) The function of respiration.
- (d) Experiments to show that expired air is warm, moist and charged with carbon dioxide.
- (e) Some effects either of alcohol or of tobacco on the structure and efficiency of the lungs.

PHYSICS.

1. *The Pressure of Liquids.*

- (a) Some of the laws obeyed by a liquid at rest and exerting pressure in consequence of its own weight.
- (b) The advantage taken of one or more of these laws in the hydrostatic press, the artesian well, the pipes of a water system, etc.
- (c) The buoyant force of water upon a body immersed in it,—its cause, its measure, and how the principle is used in determining the specific gravity, say, of iron.
- (d) Swimming in salt water as compared with swimming in fresh, with the reason for any difference noted.
- (e) The hydrometer,—what it is, its general use, and how it may be graduated or fitted for special uses.

2. *Two Types of Energy.*

- (a) The distinction between kinetic energy and potential, with an illustration of each in the case of a stone thrown directly upwards into the air.
- (b) The energy of a machine,—its possible sources, with illustrations, the relation of the machine to this energy, why the machine keeps going a little while after its supply of energy has been cut off.
- (c) The work done by the machine,—the useful and the useless, and how their sum is related to the energy originally imparted to the machine.
- (d) The correlation of energy,—the meaning, with an illustration.
- (e) The concentration of energy,—the meaning, with an illustration.

3. *The Electric Current.*

- (a) How a cell may be arranged to produce an electric current, with diagram.
- (b) Conditions that strengthen such a current and conditions that weaken it.
- (c) The effect of a rapidly interrupted current upon an electro-magnet, and the general use to which the principle is put.
- (d) The reverse of the foregoing principle, and the general use to which it is put.
- (e) Some thermal effects of the current.

CHEMISTRY.

1. *The Nature of Flame.*

- (a) Compare the flame of the Bunsen burner when the air valve is shut with the flame when the air valve is open, and explain the difference.
- (b) How can you show that the flame of the Bunsen burner is hollow or restricted to an outer mantle? Why is it hollow?
- (c) How can you show, with the aid of the Bunsen burner, the principle of the Davy safety lamp used by miners? Explain.
- (d) Mention two products of combustion in the case of the Bunsen flame, and show how the presence of each may be tested.
- (e) Why is it that wood burns partly with flame and partly without?

2. *Silver.*

- (a) What do the numbers signify in the following cases: Ag, 108; Cu, 63.3; Na, 23; Cl, 35.4; N, 14?
- (b) Dissolve a silver coin (it contains ten per cent. of copper) in nitric acid. Give the names and symbols of the salts that appear in the solution.
- (c) How many ounces of silver nitrate can be made from one ounce of pure silver?
- (d) Add a solution of common salt to a solution of silver nitrate and a white precipitate is formed. Give its name and symbol; also the formula for the reaction.
- (e) What two properties of this white precipitate with reference to light and solubility lie at the foundation of the photographic process?

3. *Potassium.*

Potassium is obtained by distilling at a white heat an intimate mixture of its carbonate with charcoal, the products being potassium vapor and carbon dioxide. The condensed metal is collected under naphtha. The

bright surface exposed by cutting the metal promptly tarnishes in the air. When thrown upon water it moves about, enwrapped in a violet flame, until it disappears, whereupon the water shows an alkaline reaction.

- (a) The formula for the reaction when potassium is manufactured.
- (b) The collection of the metal under naphtha.
- (c) The chemistry of the tarnishing.
- (d) The changes, physical and chemical, that take place when the metal is thrown upon water.
- (e) The alkaline reaction.

BOTANY.

1. *The Roots of Plants.*

(a) The essential distinction between the root and the stem, with illustrations of stems originating below ground and of roots originating above ground.

(b) Varieties of roots,—the tap root, fibrous roots and fascicled roots, with a sketch to illustrate each kind.

(c) The common beet, turnip or carrot,—why it is called a biennial plant, and how the root of the first year compares in function and characteristics with the root of the second year.

(d) The common potato and the sweet,—whether each is a root or a stem, and why.

(e) The functions of roots,—their selective power, the osmose of root hairs, etc.

2. *The Apple.*

(a) The fleshy part,—what it is, with the reason for so naming it.

(b) The central part,—what it is, why it is so called, whether it is simple or compound, and why, etc.

(c) Botanical terms that describe the position of each of these parts with reference to the other.

(d) Inferences that may be safely drawn from the central part of the apple about the styles and stigmas of the flower.

(e) Some relatives of the apple, with one or two signs of their relationship.

3. *Description of a Plant.*—Describe in botanical terms some of the characteristics of the plant submitted to you for examination, adopting the following order: (a) the stem; (b) the leaf; (c) the floral envelopes; (d) the essential organs.

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V.—DRAWING AND MUSIC.

The candidate will take both drawing and music. Time for the entire paper, one hour,—an average of ten minutes for each of the six topics required.

DRAWING.

1. Tell briefly what you have done in drawing,— what branches of the subject you have studied, how much time you have given to them separately or in the aggregate, etc.

Take either 2 or 3.

2. A watering trough is made from a granite block that is 5 feet long, 2 feet wide and 18 inches thick. Make three views or working drawings of this block, using a scale of one half inch to the foot. Indicate the scale, name the views and put in the dimensions properly.

3. Sketch the foregoing trough, assuming it to be in angular perspective and far enough below the eye to show a portion of the water surface within. Bring out the thickness of the trough walls or sides, and shade so much of the water as is visible.

Take either 4 or 5.

4. Make an outline sketch of a group of two or more objects in your vicinity, or of your own arrangement, or set before you by the examiner (a cube, a cylinder, a cone, a block of any kind, a book, a tumbler, a vase, a bottle, an ink eraser, a crayon, a flower pot, a desk, a chair, a corner of the room, etc.).

5. Sketch from nature some twig or branch with leaves or with leaves and flowers. Conventionalize such parts of the specimen as you choose, and use these parts in some design for a centre piece or a border.

Take either 6 or 7.

6. Draw from memory one of the following conventional ornamental units, naming the unit you select: the Egyptian lotus, the Greek anthemion, the Gothic fleur-de-lis.

7. What is meant by the complement of a color? Give at least two illustrations. Suggest ways in which a knowledge of complementary colors may be valuable to people.

MUSIC.

1. Do you read music or sing or play a musical instrument? Give some account of such musical training as you may have received.

Take either 2 or 3.

2. Rule neatly a staff of four measures or bars, place properly upon it the G clef, the signature of one sharp and the direction that each measure shall contain three quarter notes or their equivalent, and then fill out the measures correctly, so far as time values are concerned, with notes of various lengths. (A melodious result is desirable, though not essential for the purposes of this exercise.)

3. Sing either the scale or some passage selected either by yourself or by the examiner. (The examiner may test the voices of candidates individually or in groups, with or without musical accompaniment, as conditions suggest.)

K.

MASSACHUSETTS SCHOOL LEGISLATION

FROM 1893 TO 1898 INCLUSIVE.

MASSACHUSETTS

SCHOOL LEGISLATION FROM 1893 TO 1898 INCLUSIVE.

In 1892 there was issued an edition of "The Public Statutes of Massachusetts relating to Public Instruction, with Annotations and Explanations." This includes the laws in force in June, 1892. Many changes in these laws have since been made.

The present supplementary statement gives the titles, and in most cases the text, of the acts and resolves of public educational interest passed by the legislatures of 1893 to 1898 inclusive, and now (October, 1898) in force.

1893.

Chapter 108.—*Resolve to provide for the codification of certain statutes which the inspection department of the district police is required to enforce.*

Under this resolve there were codified all laws in force relating to the inspection of factories, workshops and public buildings (see chapter 481, approved June 16, 1894), to the attendance of children in schools (see chapter 498, approved June 21, 1894), and to the regulation of the hours of labor in manufacturing and mechanical establishments (see chapter 508, approved June 22, 1894). Chapters 498 and 508 of the Acts of 1894 have, however, been largely replaced by chapters 494 and 496 of the Acts of 1898.

Approved June 9, 1893.

Chapter 200.—*An Act relating to superintendents of public schools for small towns.*

Approved April 15, 1893.

See chapter 466, Acts of 1898.

Chapter 208.—*An Act authorizing cities and towns to provide free evening lectures.*

SECTION 1. The school committees of cities and towns maintaining free evening schools are hereby authorized to employ competent

persons to deliver lectures, on the natural sciences, history and kindred subjects, in such places as said committees may provide.

SECT. 2. Said committees are hereby authorized to provide cards or pamphlets giving the titles and names of authors of books of reference, contained in the local public libraries, on the subject-matter of said lectures.

Approved April 15, 1893.

Chapter 272. — *An Act relative to the distribution of the income of the school fund.*

This act amends chapter 177 of the Acts of 1891 by substituting in the ninth and tenth lines of section 1, for the words "two hundred and seventy-five," the words "three hundred," and by inserting in said tenth line, after the word "dollars," the words "provided, that any such town for any year in which its rate of taxation shall be eighteen dollars or more on a thousand dollars shall receive fifty dollars additional."

Approved May 2, 1893.

Chapter 355. — *An Act to protect the name and credit of certain educational institutions.*

Approved May 15, 1893.

1894.

Chapter 58. — *An Act relative to the payment of superintendents of public schools for small towns.*

Approved February 26, 1894.

See section 4, chapter 466, Acts of 1898.

Chapter 90. — *Resolve relative to increasing the Massachusetts school fund.*

This resolve provides for adding one hundred thousand dollars annually to the fund until the principal shall reach five million dollars. The principal of this fund Dec. 31, 1894, was \$3,770,548.14.

Approved June 16, 1894.

Chapter 100. — *Resolve providing for the erection of a monument to mark the site of the first town meeting held in America, and of the first free public school.*

This resolve appropriates fifteen thousand dollars for the erection of a "monument or monuments," but provides that no money shall be expended "until the site of said town meeting and of said school has been verified and approved by the governor and council."

Approved June 25, 1894.

Chapter 151. — *An Act relating to vivisection and dissection in the public schools.*

SECTION 1. No teacher or other person employed in any public school of this Commonwealth shall, in the presence of any scholar in said school or any child or minor there present, practise vivisection, nor, in such presence, exhibit any animal upon which vivisection has been practised.

SECT. 2. Dissection of dead animals or of any portions thereof, in the public schools of this Commonwealth, shall in no instance be for the purpose of exhibition, but shall be confined to the class room and to the presence of pupils engaged in the study to be illustrated by such dissection.

SECT. 3. Any person violating the provisions of this act shall be punished by a fine of not less than ten nor more than fifty dollars.

Approved March 22, 1894.

Chapter 320. — *An Act relating to instruction in the use of tools and in cooking in public schools.*

This act provides that the use of tools and the art of cooking shall be taught, by lectures or otherwise, in all the public schools in which the school committee deem it expedient, and that wherever such instruction is given the tools, implements and materials required for such instruction may be purchased by the school committee at the expense of the city or town, and loaned to pupils, free of charge, subject to such rules as the committee may prescribe.

Approved April 27, 1894.

Chapter 329. — *An Act to provide for the examination and certification of school teachers by the state board of education.*

Approved April 28, 1894.

Chapter 337. — *An Act relative to fire escapes in schoolhouses.*

Approved May 4, 1894.

Chapter 436. — *An Act relative to the payment of tuition and transportation of children attending school outside of the town in which they reside.*

Approved May 26, 1894.

See section 3, chapter 496, Acts of 1898.

Chapter 498. — *An Act relative to the attendance of children in the schools.*

This act, with the exception of sections 2 and 30, was repealed by chapter 496 of the Acts of 1898, to which reference should now be made. The unrepealed sections stand as follows : —

SECT. 2. For the purposes of the preceding section school committees shall approve a private school only when the teaching in all the studies required by law is in the English language, and when they are satisfied that such teaching equals in thoroughness and efficiency the teaching in the public schools in the same locality, and that equal progress is made by the pupils therein, in the studies required by law, with that made during the same time in the public schools; but they shall not refuse to approve a private school on account of the religious teaching therein.

SECT. 30. Chapter forty-seven, and sections eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty and twenty-one of chapter forty-eight of the Public Statutes; chapter two hundred and forty-five of the acts of the year eighteen hundred and eighty-three; chapters seventy-one and one hundred and ninety-eight of the acts of the year eighteen hundred and eighty-five; chapters two hundred and forty-nine, four hundred and twenty-two and four hundred and sixty-four of the acts of the year eighteen hundred and eighty-nine; chapters three hundred and nine and three hundred and eighty-four of the acts of the year eighteen hundred and ninety; chapters three hundred and sixty-one and four hundred and twenty-six of the acts of the year eighteen hundred and ninety-one, and chapter sixty-two of the acts of the year eighteen hundred and ninety-two; and chapter one hundred and eighty-eight of the acts of the year eighteen hundred and ninety-four, and all acts and parts of acts inconsistent herewith, are hereby repealed.

Approved June 21, 1894.

Chapter 508. — *An Act regulating the employment of labor.*

A large part of this act has been replaced by the provisions of chapter 494, Acts of 1898, to which reference should now be made. The unchanged sections that refer to the public schools are as follows:—

SECT. 40. Every public building and every schoolhouse shall be kept in a cleanly state and free from effluvia arising from any drain, privy or other nuisance, and shall be provided with a sufficient number of proper water closets, earth closets or privies for the reasonable use of the persons admitted to such public building or of the pupils attending such schoolhouse.

SECT. 41. Every public building and every schoolhouse shall be ventilated in such a proper manner that the air shall not become so exhausted as to be injurious to the health of the persons present therein. The provisions of this section and the preceding section shall be enforced by the inspection department of the district police.

SECT. 42. Whenever it appears to an inspector of factories and public buildings that further or different sanitary provisions or means of ventilation are required in any public building or school-house, in order to conform to the requirements of this act, and that the same can be provided without incurring unreasonable expense, such inspector may issue a written order to the proper person or authority, directing such sanitary provisions or means of ventilation to be provided, and they shall thereupon be provided, in accordance with such order, by the public authority, corporation or person having charge of, owning or leasing such public building or school-house.

SECT. 43. Any school committee, public officer, corporation or person shall within four weeks after the receipt of an order from an inspector, as provided in the preceding section, provide the sanitary provisions or means of ventilation required thereby.

SECT. 49. (See chapter 394, Acts of 1898.)

SECT. 50. No license shall be granted for a theatrical exhibition or public show in which children under fifteen years of age are employed as acrobats, contortionists, or in any feats of gymnastics or equestrianism, or in which such children belonging to the public schools are employed or allowed to take part as performers on the stage in any capacity, or where in the opinion of the board authorized to grant licenses such children are employed in such a manner as to corrupt their morals or impair their physical health; but nothing herein contained shall prevent the giving of special permission as provided by the preceding section.

SECT. 57. The following expressions used in this act shall have the following meanings:—

The expression “person” means any individual, corporation, partnership, company or association.

The expression “child” means a person under the age of fourteen years.

The expression “young person” means a person of the age of fourteen years and under the age of eighteen years.

The expression “public building” means any building or premises used as a place of public entertainment, instruction, resort or assemblage.

The expression “schoolhouse” means any building or premises in which public or private instruction is afforded to not less than ten pupils at one time.

The aforesaid expressions shall have the meanings above defined for them respectively in all laws of this Commonwealth, relating to

the employment of labor, whether heretofore or hereafter enacted, unless a different meaning is plainly required by the context.

SECT. 61. A certificate of the age of a minor made and sworn to by him and by his parent or guardian at the time of his employment in a mercantile establishment shall be prima facie evidence of his age in any prosecution under the preceding section.

SECT. 62. Every parent, guardian or person authorized to sign the certificates prescribed by section seventeen of this act, who certifies to any materially false statement therein, shall be punished by fine not exceeding fifty dollars or by imprisonment not exceeding thirty days, or by both.

SECT. 64. Any person violating the provisions of section forty-nine of this act, forbidding the employment of children in any circus or public place, shall be punished by fine not exceeding two hundred dollars, or by imprisonment in the county jail not exceeding six months.

SECT. 75. Any school committee, public officer, corporation, or person, neglecting for four weeks to obey an order from an inspector under section forty-two of this act, shall be punished by fine not exceeding one hundred dollars.

SECT. 78. Any person violating any provision of this act where no special provision as to the penalty for such violation is made shall be punished by fine not exceeding one hundred dollars.

SECT. 79. Within one month after the passage of this act the chief of the district police shall cause a printed copy thereof to be transmitted to the school committee of every city and town in the Commonwealth.

SECT. 80. Sections eight and nine of chapter forty-eight, and sections one, two and three of chapter seventy-four of the Public Statutes; chapter one hundred and fifty of the acts of the year eighteen hundred and eighty-two; chapter two hundred and seventy-five of the acts of the year eighteen hundred and eighty-four; chapter eighty-seven of the acts of the year eighteen hundred and eighty-six; chapters one hundred and three, one hundred and twenty-one, one hundred and seventy-three, two hundred and fifteen, two hundred and eighty, three hundred and thirty and three hundred and ninety-nine of the acts of the year eighteen hundred and eighty-seven; chapters one hundred and forty-nine, three hundred and five and three hundred and forty-eight of the acts of the year eighteen hundred and eighty-eight; chapter two hundred and ninety-one of the acts of the year

eighteen hundred and eighty-nine; chapters forty-eight, ninety and two hundred and ninety-nine of the acts of the year eighteen hundred and ninety; chapters two hundred and thirty-nine, three hundred and seventeen, three hundred and fifty and three hundred and fifty-seven, except section six, of the acts of the year eighteen hundred and ninety-one; chapters eighty-three, two hundred and ten, two hundred and ninety-six, three hundred and thirty, three hundred and fifty-two, three hundred and fifty-seven and four hundred and ten of the acts of the year eighteen hundred and ninety-two, and chapters two hundred and forty-six, three hundred and eighty-six and four hundred and six of the acts of the year eighteen hundred and ninety-three, and all acts and parts of acts inconsistent herewith, are hereby repealed.

Approved June 22, 1894.

Chapter 515. — *An Act relative to vaccination.*

Section 2 of this act provides that “all children who shall present a certificate signed by a regular practising physician that they are unfit subjects for vaccination shall not be subject to the provisions of section nine of chapter forty-seven of the Public Statutes excluding unvaccinated children from public schools.”

Approved June 25, 1894.

1895.

Chapter 94. — *An Act to authorize towns to pay the tuition of children attending certain academies in towns in which there is no high school.*

SECTION 1. Any town in which a high school is not maintained, but in which an academy of equal or higher grade is maintained, may grant and vote money to pay the tuition of children residing in such town and attending such academy: *provided*, such academy is approved for that purpose by the state board of education.

SECT. 2. This act shall take effect upon its passage.

Approved March 7, 1895.

Chapter 115. — *An Act relative to flags upon public buildings and schoolhouses.*

SECTION 1. It shall be unlawful to display the flag or emblem of any foreign country upon the outside of any state, county, city or town building or public schoolhouse within this Commonwealth: *provided, however*, that when any foreigner shall become the guest of the United States or this Commonwealth, upon proclamation by the governor the flag of the country of which such public guest shall be a

citizen may be displayed upon public buildings but not upon public schoolhouses.

SECT. 2. Any person violating the provisions of this act shall be punished by a fine of not more than twenty dollars.

SECT. 3. This act shall take effect upon its passage.

Approved March 13, 1895.

Chapter 181. — *An Act requiring school committees to furnish the public schools with national flags.*

SECTION 1. It shall be the duty of the school committees in the several cities and towns of the Commonwealth to provide for each schoolhouse in which public schools are maintained within their respective cities and towns not otherwise supplied, a United States flag of silk or bunting, not less than four feet in length, and a suitable flagstaff or other apparatus whereby such flag may be displayed on the schoolhouse grounds or schoolhouse buildings every school day, when the weather will permit, and on the inside of the schoolhouse on other school days.

SECT. 2. This act shall take effect on the first day of September in the year eighteen hundred and ninety-five.

Approved March 27, 1895.

Chapter 212. — *An Act relative to the payment by the Commonwealth of the tuition of children attending school outside of the town in which they reside.*

Approved April 4, 1895.

See section 3, chapter 496, Acts of 1898.

1896.

Chapter 310. — *An Act relative to state scholarships in the Massachusetts Institute of Technology.*

SECTION 1. There shall be paid annually from the treasury of the Commonwealth to the treasurer of the Massachusetts Institute of Technology, from and after the first day of September in the year eighteen hundred and ninety-six, the sum of four thousand dollars.

SECT. 2. In consideration of such payment and of the grant made by chapter one hundred and three of the resolves of the year eighteen hundred and eighty-seven the Massachusetts Institute of Technology shall maintain forty free scholarships, of which each senatorial district in the Commonwealth shall be entitled to one, if a candidate is presented who is otherwise unable to bear the expense of tuition. In case no such candidate appears from a senatorial district, then a candidate may be selected from the state at large to fill such vacancy,

who may continue to hold the scholarship annually until a candidate is presented from the senatorial district unrepresented.

SECT. 3. The scholarships shall be awarded to such pupils of the public schools of Massachusetts as shall be found upon examination to possess the qualifications fixed for the admission of students to said institute, and who shall be selected by the board of education; preference in the award being given only to qualified candidates otherwise unable to bear the expense of tuition.

SECT. 4. So much of chapter one hundred and three of the resolves of the year eighteen hundred and eighty-seven as relates to state scholarships, and so much of chapter seventy of the resolves of the year eighteen hundred and ninety-five, as provides an annual appropriation of two thousand dollars for the maintenance of ten free scholarships, are hereby repealed.

SECT. 5. This act shall take effect on the first day of July in the year eighteen hundred and ninety-six. *Approved April 27, 1896.*

Chapter 319.—*An Act relative to school committees in towns.*

Section twenty-six of chapter forty-four of the Public Statutes is hereby amended by inserting after the word "committee", in the second line, the words:—and any town in which ballots for town officers are provided at the expense of the town may vote to so change the number of its school committee at a meeting, other than the annual meeting, called for the purpose and held thirty days at least before the annual meeting at which such change is to become operative, — so as to read as follows:—*Section 26.* A town may, at its annual meeting, vote to increase or diminish the number of its school committee; and any town in which ballots for town officers are provided at the expense of the town may vote to so change the number of its school committee at a meeting, other than the annual meeting, called for the purpose and held thirty days at least before the annual meeting at which such change is to become operative. Such increase shall be made by adding one or more to each class, to hold office according to the tenure of the class to which they are severally chosen. Such diminution shall be made by choosing, annually, such number as will in three years effect it, and a vote to diminish shall remain in force until the diminution under it is accomplished.

Approved April 27, 1896.

Chapter 381.—*An Act relative to the presentation of certain petitions to the general court.*

SECTION 1. Whoever intends to present to the general court a petition for the incorporation of a college or university or other edu-

educational institution, with power to grant degrees, or for an amendment to the charter of an existing educational institution so that the said institution not having such power shall thereafter have power to grant degrees, shall give notice of such petition by publishing a copy of the same once a week for three successive weeks in such newspaper or newspapers as the secretary of the state board of education shall direct, the last publication to be made at least fourteen days before the session at which the petition is to be presented.

SECT. 2. Such petitions shall be deposited with the secretary of the state board of education, with proof of publication satisfactory to him, on or before the first day of January, and the said secretary shall transmit the same to the general court during the first week of the session, with the endorsement, in each case, that the required publication has been made.

SECT. 3. This act shall take effect upon its passage.

Approved May 9, 1896.

Chapter 382. — *An Act relative to the cost of education in the public schools of children under the charge of the state board of lunacy and charity, or of the trustees of the Lyman and industrial schools.*

Approved May 9, 1896.

This act was repealed by chapter 496 of the Acts of 1898. See section 8 of said chapter.

Chapter 407. — *An Act relative to state scholarships in the Worcester Polytechnic Institute.*

SECTION 1. There shall be paid annually from the treasury of the Commonwealth to the treasurer of the Worcester Polytechnic Institute, from and after the first day of September in the year eighteen hundred and ninety-six, the sum of three thousand dollars.

SECT. 2. In consideration of such payment and of the grant made by chapter fifty-seven of the resolves of the year eighteen hundred and sixty-nine the Worcester Polytechnic Institute shall maintain forty free scholarships, of which each senatorial district in the Commonwealth shall be entitled to one, if a candidate is presented who is otherwise unable to bear the expense of tuition. In case no such candidate appears from a senatorial district, then a candidate may be selected from the state at large to fill such vacancy, who may continue to hold the scholarship annually until a candidate is presented from the senatorial district unrepresented.

SECT. 3. The scholarships shall be awarded to such pupils of the public schools of Massachusetts as shall be found upon examination to possess the qualifications fixed for the admission of students to said

institute, and who shall be selected by the board of education ; preference in the award being given only to qualified candidates otherwise unable to bear the expense of tuition.

SECT. 4. Chapter seventy-two and so much of chapter fifty-seven of the resolves of the year eighteen hundred and sixty-nine as relates to state scholarships are hereby repealed. *Approved May 16, 1896.*

Chapter 408.—*An Act relative to the salaries of public school teachers in small towns.*

With the approval of the state board of education there may be paid from the income of the school fund, to any town having a valuation of less than two hundred and fifty thousand dollars, a sum not exceeding two dollars per week for the actual time of service of each teacher, approved by the school committee of said town after special examination as to exceptional ability, employed in the public schools of said town, which sum shall be added to the salary of such teacher: *provided*, that the amount paid by the town toward the salary of such teacher shall not be less than the average salary paid by said town to teachers in the same grade of school for the three years next preceding, and that by said addition no teacher shall receive more than ten dollars per week.

Approved May 16, 1896.

1897.

Chapter 299.—*An Act to authorize the taking of land for school-houses.*

SECTION 1. Cities by their city councils, and towns by their selectmen, may take, maintain and hold, in fee, any lands for the erection of a schoolhouse and necessary buildings, or for enlarging a schoolhouse or schoolhouse lot ; but the selectmen of towns shall not take any such lands unless previously authorized so to do at some public meeting of the inhabitants of the town regularly warned and notified therefor.

SECT. 2. The city councils of cities and the selectmen of towns shall cause to be recorded in the registry of deeds for the county or district of the county in which the lands are situated, a description thereof sufficiently accurate for identification, with a statement of the purpose for which the same were taken, which statement shall be signed by the mayor of the city or by the chairman of the selectmen of the town taking the land as aforesaid, and upon such recording the land so described shall be taken for such city or town.

SECT. 3. The city councils of cities and the selectmen of towns shall estimate and determine as near as may be all damages sustained by any person or corporation by the taking of land, or any right

therein, under this act; but any one aggrieved by such determination may have such damages assessed by a jury of the superior court, in the same manner as is provided by law with respect to damages sustained by reason of the laying out of ways. If upon trial damages are increased beyond the amount determined as aforesaid the aggrieved party shall recover costs, otherwise such party shall pay costs, and costs shall be taxed as in civil cases; but no suit or petition for such damages shall be brought after the expiration of two years from the date of the recording of the description and statement as aforesaid.

SECT. 4. The powers conferred upon and the duties to be performed by city councils of cities under this act shall, in the city of Boston, be conferred upon and exercised by the board of street commissioners of said city, with the approval of the mayor.

SECT. 5. This act shall take effect upon its passage.

Approved April 21, 1897.

Chapter 498.—*An Act to enable certain small towns to take advantage of the act providing for the payment of a part of the compensation of school teachers from the state school fund.*

This act amends chapter 408 of the Acts of 1896 by substituting “three hundred and fifty thousand dollars” for “two hundred and fifty thousand dollars.”

Approved June 10, 1897.

1898.

Chapter 315.—*An Act relative to the temporary release of children from truant schools.*

SECTION 1. Section eighteen* of chapter four hundred and ninety-eight of the acts of the year eighteen hundred and ninety-four is hereby amended by adding at the end thereof the following words:— and in case of death or serious illness in the immediate family of an inmate of a truant school such judges or justices may order such inmate to be temporarily released for a specified time, either with or without the custody of the superintendent or other officer, and may revoke, extend or otherwise modify such order, the expenses incurred in serving such order to be approved and paid like other expenses of such institution,—so as to read as follows:— *Section 18.* Children so committed may, upon satisfactory proof of amendment or other sufficient cause, be discharged from the state primary school† by said state board, and from other places of confinement by the judge or

* See section 36, chapter 496, Acts of 1898.

† See, however, chapter 428, Acts of 1895, abolishing the state primary school.

justice who committed them; and in case of death or serious illness in the immediate family of an inmate of a truant school such judges or justices may order such inmate to be temporarily released for a specified time, either with or without the custody of the superintendent or other officer, and may revoke, extend or otherwise modify such order, the expenses incurred in serving such order to be approved and paid like other expenses of such institution.

SECT. 2. This act shall take effect upon its passage.

Approved April 12, 1898.

Chapter 394. — *An Act relative to the protection of children.*

SECTION 1. Section forty-nine of chapter five hundred and eight of the acts of the year eighteen hundred and ninety-four is hereby amended by striking out the whole of said section and inserting in place thereof the following: — *Section 49.* No person shall employ or exhibit or sell, apprentice or give away for the purpose of employing or exhibiting, a child under fifteen years of age, in dancing on the stage, playing on musical instruments, singing, walking on a wire or rope, or riding or performing as a gymnast, contortionist or acrobat, in any circus or theatrical exhibition, or in any public place whatsoever, or cause, procure or encourage any such child to engage therein: *provided*, that nothing in this section shall be construed to prevent the education of children in vocal and instrumental music or dancing, or their employment as musicians in any church, chapel or school, or school exhibition, or to prevent their taking part in any festival, concert or musical exhibition on the special written permission of the mayor and aldermen of a city or of the selectmen of a town.

SECT. 2. This act shall take effect upon its passage.

Approved April 29, 1898.

Chapter 466. — *An Act relative to the employment of superintendents of schools by small towns.*

SECTION 1. Any two or more towns the valuation of each of which does not exceed two million five hundred thousand dollars, and the aggregate number of schools in all of which is not more than fifty nor less than twenty-five, or any four or more towns, without reference to the minimum limit in the aggregate number of schools aforesaid, the valuation of each of which does not exceed two million five hundred thousand dollars, may by vote of the several towns unite for the purpose of the employment of a superintendent of schools under the provisions of this act.

SECT. 2. When such a union has been effected the school commit-

tees of the towns comprising the union shall form a joint committee, and for the purposes of this act said joint committee shall be held to be the agents of each town comprising the union. Said committee shall meet annually in joint convention in the month of April, at a day and place agreed upon by the chairman of the committees of the several towns comprising the union, and shall organize by the choice of a chairman and secretary. They shall choose by ballot a superintendent of schools, determine the relative amount of service to be performed by him in each town, fix his salary and apportion the amount thereof to be paid by the several towns, and certify such amount to the treasurer of each town. When such a union has been effected it shall not be dissolved because any one of the towns shall have increased its valuation so that it exceeds two million five hundred thousand dollars, nor because the number of schools shall have increased beyond the number of fifty or decreased below the number of twenty-five, nor, for any reason, for the period of three years from the date of the formation of such union, except by vote of a majority of the towns constituting the union.

SECT. 3. Whenever the chairman and secretary of such joint committee shall certify to the state auditor under oath that a union has been effected as herein provided, that the towns, in addition to an amount equal to the average of the total sum paid, or to the sum paid per child, by the several towns for schools during the three years next preceding, unitedly have raised by taxation and appropriated a sum not less than seven hundred and fifty dollars for the support of a superintendent of schools, and that under the provisions of this act a superintendent of schools has been employed for one year, then upon the approval of said certificate by the state board of education and the presentation thereof to the state auditor, a warrant shall be drawn upon the treasurer of the Commonwealth for the payment of one thousand two hundred and fifty dollars, seven hundred and fifty dollars of which amount shall be paid for the salary of such superintendent, and the remaining five hundred dollars shall be apportioned and distributed on the basis of the amount appropriated and expended for a superintendent in the towns forming such district for the year next preceding, which amount shall be paid for the salaries of teachers employed in the public schools within such district.

SECT. 4. There shall be appropriated annually such sum as may be necessary to carry out the provisions of this act.

SECT. 5. The provisions of section forty-three of chapter forty-four of the Public Statutes respecting the service of school committees without pay in towns wherein a superintendent is appointed shall not apply to towns uniting in the employment of a superintendent under the provisions of this act.

SECT. 6. Towns whose valuation exceeds the limit fixed by section one may participate in any union formed under the provisions of this act, in the same manner and subject to the same terms, conditions and benefits as towns of valuation within that limit, except as hereinafter provided.

SECT. 7. In any district so formed, including at its formation a town whose valuation exceeds said limit, the allowance by the Commonwealth in aid of said district, as provided in section three, shall not be made to the entire district, but shall first be apportioned to the several towns upon the basis of the amount appropriated by them respectively for the support of a superintendent for the year next preceding, and the warrant upon the treasurer of the Commonwealth shall then be drawn in favor of and only for the portions so assigned to those towns of the district whose valuation at the time of said union did not exceed the limit provided in section one.

SECT. 8. When the valuation of any town in a district formed under any of the foregoing provisions shall have so increased as to exceed the sum of three million five hundred thousand dollars the fact of such excess shall for the purposes of this act have the same force and effect as if the valuation of said town had at the time of such union exceeded the limit of two million five hundred thousand dollars.

SECT. 9. Towns may by vote authorize their school committees to arrange such unions in accordance with the provisions of this act as may be most advantageous, subject however to the approval of the state board of education; and any district so formed by committees so authorized and with such approval shall have the same validity as if formed by direct vote of the towns, as provided in section one.

SECT. 10. This act shall take effect upon its passage.

Approved May 26, 1898.

Chapter 493. — *An Act relative to awarding state scholarships in the Massachusetts Institute of Technology and in the Worcester Polytechnic Institute.*

SECTION 1. The state board of education may in its discretion award that any free scholarship which either the Massachusetts Institute of Technology or the Worcester Polytechnic Institute is required to maintain under the provisions, respectively, of chapters three hundred and ten and four hundred and seven of the acts of the year eighteen hundred and ninety-six, shall be divided between two pupils. The scholarships so divided shall be called half scholarships; and neither of said institutions shall require from any pupil to whom a half scholarship has been awarded payment of more than

one half of the regular charge or fee for tuition paid by pupils not holding scholarships.

SECT. 2. This act shall take effect upon its passage.

Approved June 2, 1898.

Chapter 494. — *An Act to regulate the employment of labor.*

SECTION 1. No child under fourteen years of age shall be employed in any factory, workshop or mercantile establishment. No such child shall be employed in any work performed for wages or other compensation, to whomsoever payable, during the hours when the public schools of the town or city in which he resides are in session, nor be employed at any work before the hour of six o'clock in the morning or after the hour of seven o'clock in the evening.

SECT. 2. No child under sixteen years of age shall be employed in any factory, workshop or mercantile establishment unless the person or corporation employing him procures and keeps on file and accessible to the truant officers of the town or city, and to the district police and inspectors of factories, an age and schooling certificate as hereinafter prescribed, and keeps two complete lists of all such children employed therein, one on file and one conspicuously posted near the principal entrance of the building in which such children are employed, and also keeps on file a complete list, and sends to the superintendent of schools, or, where there is no superintendent, to the school committee, the names of all minors employed therein who cannot read at sight and write legibly simple sentences in the English language.

SECT. 3. An age and schooling certificate shall be approved only by the superintendent of schools or by a person authorized by him in writing, or, where there is no superintendent of schools, by a person authorized by the school committee: *provided*, that no member of a school committee or other person authorized as aforesaid shall have authority to approve such certificate for any child then in or about to enter his own employment, or the employment of a firm or corporation of which he is a member, officer or employee. The person approving the certificate shall have authority to administer the oath provided for therein, but no fee shall be charged therefor.

SECT. 4. An age and schooling certificate shall not be approved unless satisfactory evidence is furnished by the last school census, the certificate of birth or baptism of such child, the register of birth of such child with a town or city clerk, or in some other manner, that such child is of the age stated in the certificate.

SECT. 5. The age and schooling certificate of a child under sixteen years of age shall not be approved and signed until he presents

to the person authorized to approve and sign the same an employment ticket as hereinafter prescribed, duly filled out and signed. A duplicate of each age and schooling certificate shall be filled out and shall be kept on file by the school committee. Any explanatory matter may be printed with such certificate in the discretion of the school committee or superintendent of schools. The employment ticket and the age and schooling certificate shall be separately printed, and shall be filled out, signed, and held or surrendered, as indicated in the following forms : —

EMPLOYMENT TICKET, LAWS OF 1898.

When [name of child] , height [feet and inches] , complexion [fair or dark], hair [color] , presents an age and schooling certificate duly signed, I intend to employ [him or her].

[Signature of intending employer or agent.]

[Town or city and date.]

AGE AND SCHOOLING CERTIFICATE, LAWS OF 1898.

This certifies that I am the [father, mother, guardian or custodian] of [name of child] , and that [he or she] was born at [name of town or city] , in the county of [name of county, if known] , and state [or country] of , on the [day and year of birth] , and is now [number of years and months] old.

[Signature of father, mother, guardian or custodian.]

[Town or city and date.]

Then personally appeared before me the above-named [name of person signing] , and made oath that the foregoing certificate by [him or her] signed is true to the best of [his or her] knowledge and belief. I hereby approve the foregoing certificate of [name of child] , height [feet and inches] , complexion [fair or dark], hair [color] , having no sufficient reason to doubt that [he or she] is of the age therein certified. I hereby certify that [he or she] [can or cannot] read at sight and [can or cannot] write legibly simple sentences in the English language.

This certificate belongs to [name of child in whose behalf it is drawn] , and is to be surrendered to [him or her] whenever [he or she] leaves the service of the corporation or employer holding the same; but if not claimed by said child within thirty days from such time it shall be returned to the superintendent of schools, or, where there is no superintendent of schools, to the school committee.

[Signature of person authorized to approve and sign, with official character or authority.]

[Town or city and date.]

In the case of a child who cannot read at sight and write legibly simple sentences in the English language the certificate shall continue as follows, after the word “ language : ” —

I hereby certify that [he or she] is regularly attending the [name] public evening school. This certificate shall continue in force only so long as the regular attendance of said child at the evening school is endorsed weekly by a teacher thereof.

SECT. 6. Whoever employs a child under sixteen years of age, and whoever having under his control a child under such age permits such child to be employed, in violation of section one or two of this act, shall for such offence be fined not more than fifty dollars; and whoever continues to employ any child in violation of either of said sections of this act after being notified by a truant officer or an inspector of factories thereof, shall for every day thereafter that such employment continues be fined not less than five nor more than twenty dollars. A failure to produce to a truant officer or inspector of factories any age and schooling certificate or list required by this act shall be prima facie evidence of the illegal employment of any person whose age and schooling certificate is not produced or whose name is not so listed. Any corporation or employer retaining any age and schooling certificate in violation of section five of this act shall be fined ten dollars. Every person authorized to sign the certificate prescribed by section five of this act who knowingly certifies to any materially false statement therein shall be fined not more than fifty dollars.

SECT. 7. No person shall employ any minor over fourteen years of age, and no parent, guardian or custodian shall permit to be employed any such minor under his control, who cannot read at sight and write legibly simple sentences in the English language, while a public evening school is maintained in the town or city in which such minor resides, unless such minor is a regular attendant at such evening school or at a day school: *provided*, that upon presentation by such minor of a certificate signed by a regular practising physician, and satisfactory to the superintendent of schools, or, where there is no superintendent of schools, the school committee, showing that the physical condition of such minor would render such attendance in addition to daily labor prejudicial to his health, said superintendent of schools or school committee shall issue a permit authorizing the employment of such minor for such period as said superintendent of schools or school committee may determine. Said superintendent of schools or school committee, or teachers acting under authority thereof, may excuse any absence from such evening school arising from justifiable cause. Any person who employs a minor in violation of the provisions of this section shall forfeit for each offence not more than one hundred dollars for the use of the evening schools of such town or city. Any parent, guardian or custodian who permits to be em-

ployed any minor under his control in violation of the provisions of this section shall forfeit not more than twenty dollars for the use of the evening schools of such town or city.

SECT. 8. Truant officers may visit the factories, workshops and mercantile establishments in their several towns and cities and ascertain whether any minors are employed therein contrary to the provisions of this act, and they shall report any cases of such illegal employment to the school committee and to the chief of the district police, or to the inspector of factories for the district. Inspectors of factories and truant officers may require that the age and schooling certificates and lists provided for in this act, of minors employed in such factories, workshops or mercantile establishments, shall be produced for their inspection. Complaints for offences under this act shall be brought by inspectors of factories.

SECT. 9. Sections thirteen, fourteen, sixteen to twenty-five inclusive, sixty-seven, sixty-nine and seventy of chapter five hundred and eight of the acts of the year eighteen hundred and ninety-four, and all other acts and parts of acts inconsistent herewith, are hereby repealed.

SECT. 10. This act shall take effect on the first day of September in the year eighteen hundred and ninety-eight.

Approved June 2, 1898.

Chapter 496.—*An Act relative to school attendance and truancy.*

SECTION 1. Every town and city shall maintain for at least thirty-two weeks in the year a sufficient number of schools for the instruction of all the children who may legally attend a public school therein. Such schools shall be taught by teachers of competent ability and good morals, and shall give instruction in orthography, reading, writing, the English language and grammar, geography, arithmetic, drawing, the history of the United States, physiology and hygiene, including special instruction as to the effect of alcoholic drinks and of stimulants and narcotics on the human system, and good behavior. Bookkeeping, algebra, geometry, one or more foreign languages, the elements of the natural sciences, kindergarten training, manual training, agriculture, sewing, cooking, vocal music, physical training, civil government, ethics and such other subjects as the school committee deem expedient, may be taught in the public schools.

SECT. 2. Every city and every town of five hundred families or householders according to the latest public census taken by the authority either of the Commonwealth or of the United States shall, and any other town may, maintain a high school, adequately equipped, to be kept by a principal and such assistants as may be needed, of

competent ability and good morals, who shall give instruction in such subjects designated in section one as it may be deemed expedient to teach in the high school, and in such additional subjects as may be required for the general purpose of training and culture, as well as for the special purpose of preparing pupils for admission to state normal schools, technical schools and colleges. Such high school shall maintain one or more courses of study, at least four years in length, and shall be kept for the benefit of all the inhabitants of the town or city, forty weeks at least, exclusive of vacations, in each year. A town may if it chooses meet only a portion of the foregoing requirements in its own high school: *provided*, that it shall make adequate provisions for meeting the rest of said requirements in the high school of another town or any city.

SECT. 3. Any town of less than five hundred families or householders in which a public high school or a school of corresponding grade is not maintained shall pay for the tuition of any child who resides in said town and who attends the high school of another town or city, provided the approval of such attendance by the school committee of the town in which the child resides is first obtained. If any town in which a public high school or a school of corresponding grade is not maintained neglects or refuses to pay for tuition as provided in this section such town shall be liable therefor to the parent or guardian of the child furnished with such tuition, if the parent or guardian has paid for the same, and otherwise to the town or city furnishing the same, in an action of contract. No member of the school committee of a town in which a public high school or a school of corresponding grade is not maintained shall refuse to approve the attendance of any child residing in such town in the high school of some other town or city if such child has completed the course of instruction provided by the former town, and, in the opinion of the superintendent of schools or the school committee of said former town, is properly qualified to enter such high school. If the school committee of such town refuses to grant such approval such town shall be liable for the tuition of such child, in the same manner and to the same extent as if the parent or guardian of such child had obtained the approval of the school committee. Any town not maintaining a public high school or a school of corresponding grade, but affording high school instruction by sending pupils to other towns, may pay the necessary transportation expenses of such pupils. Any town the valuation of which does not exceed five hundred thousand dollars shall be entitled to receive from the treasury of the Commonwealth all necessary sums which have been actually expended for high school tuition under the provisions of this section, provided such expenditure shall be certified under oath to the state board of educa-

tion by the school committee of such town within thirty days from the date of such expenditure, and provided such high school shall have been approved by the state board of education.

SECT. 4. Every town and city of twenty thousand or more inhabitants shall maintain as part of both its elementary and its high school system the teaching of manual training.

SECT. 5. Any town or city may, and every town and city of ten thousand or more inhabitants shall, maintain annually evening schools for the instruction of persons over fourteen years of age, in orthography, reading, writing, the English language and grammar, geography, arithmetic, industrial drawing, both free-hand and mechanical, the history of the United States, physiology and hygiene and good behavior. Such other subjects may be taught in such schools as the school committee deem expedient.

SECT. 6. Every city of fifty thousand or more inhabitants shall maintain annually an evening high school, in which shall be taught such subjects as the school committee thereof deem expedient, whenever fifty or more residents fourteen years of age or over who are competent in the opinion of the school committee to pursue high school studies shall petition in writing for an evening high school, and certify that they desire to attend such school. The committee shall determine the number of weeks in each year and the hours of the evening during which such schools shall be kept.

SECT. 7. Every child shall have the right to attend the public schools in the town or city in which his parent or guardian has a legal residence, or in which the child himself actually resides, subject to such reasonable regulations as to the numbers and qualifications of pupils to be admitted to the respective schools, and as to other school matters, as the school committee shall from time to time prescribe. No child shall be excluded from a public school of any town or city on account of race, color or religion.

SECT. 8. When a child for the sole purpose of attending school there resides in a town or city other than that of the legal residence of his parent or guardian, the parent or guardian of such child shall be liable to pay said town or city for the tuition of such child while attending school in said town or city a sum equal to the average expense of such school per pupil during the year next preceding, for a period equal to the time during which the child so attends, unless the town or city where the parent or guardian resides is required by section three of this act to pay for said tuition. For the tuition in the public schools in any town or city of any child between the ages of five and fifteen years who shall be placed elsewhere than in his own home by the state board of lunacy and charity, or by the trustees of the Lyman and industrial schools, or kept under the control of either

of said boards in said town or city, the Commonwealth shall pay to said town or city, and for such tuition of any such child so placed by the trustees for children of the city of Boston, or so kept under the control of said trustees, the city of Boston from its appropriation for school purposes shall pay to said town or city the sum of fifty cents for each week of five days, or major part thereof, of attendance of every such child in the public schools. For the transportation to and from a public school of any child whose tuition is payable by the Commonwealth or by the city of Boston under the provisions of this section the Commonwealth or the city of Boston, as the case may be, shall pay to the town or city furnishing such transportation, for each week of five days or major part thereof, a sum equal to the average amount per child paid by said town or city per week for the transportation of children to and from school over the route by which such child is conveyed. Settlements of the accounts of the several towns and cities with the Commonwealth and with the city of Boston under this act shall be made annually on the first day of April, and the amounts found due shall be paid within three months thereafter. The money received by said towns and cities under the provisions of this section shall be applied to the support of schools. For the tuition in the public schools in any town of less than ten thousand inhabitants of any child between the ages of five and fifteen years not theretofore resident in such town, who is an inmate of an institution containing more than six inmates, said town may recover from said institution the extra school expense incurred, as may be determined jointly by the school committee of said town and the trustees or managers of said institution, or, in case of disagreement between said school committee and said trustees or managers, as may be decreed by the probate court: *provided*, that no demand shall be made upon said trustees or managers without a special vote of the town instructing the school committee to that effect.

SECT. 9. The parent, guardian or custodian of any child who is refused admission to or excluded from the public schools shall on application therefor be furnished by the school committee with a statement in writing of the grounds and reasons for the exclusion; and after a statement has been so furnished a child thus refused admission to or excluded from said schools may, by his guardian or next friend, bring an action of tort and recover damages for any unlawful exclusion, against said town or city, and may by interrogatories filed in the case examine any member of the school committee or any other officer of the defendant town or city, as if he were a party to the suit.

SECT. 10. Any child, with the consent first obtained of the school committee of the town or city in which such child resides, may attend,

at the expense of said town or city, the public schools of another town or city, upon such terms as may be satisfactory to the school committees of the towns or cities in interest.

SECT. 11. No child who has not been duly vaccinated shall be admitted to a public school except upon presentation of a certificate signed by a regular practising physician that such child is an unfit subject for vaccination. No child who is a member of a household in which a person is sick with smallpox, diphtheria, scarlet fever or measles, or of a household exposed to contagion from a household as aforesaid, shall attend any public school during such sickness or until the teacher of the school has been furnished with a certificate from the board of health of the town or city, or from the attending physician of such sick person, stating in a case of smallpox, diphtheria or scarlet fever, that a period of at least two weeks, and in a case of measles a period of at least three days, has elapsed since the recovery, removal or death of such person, and that danger of the conveying of such disease by such child has passed.

SECT. 12. Every child between seven and fourteen years of age shall attend some public day school in the town or city in which he resides during the entire time the public day schools are in session, subject to such exceptions as to children, places of attendance and schools as are provided for in sections three, seven, ten and eleven of this act: *provided*, that the superintendent of schools or, where there is no superintendent of schools, the school committee, or teachers acting under authority of said superintendent of schools or school committee, may excuse cases of necessary absence; and *provided*, *further*, that the attendance of a child upon a public day school shall not be required if such child has attended for a like period of time a private day school approved by the school committee of such town or city in accordance with section two of chapter four hundred and ninety-eight of the acts of the year eighteen hundred and ninety-four, or if such child has been otherwise instructed for a like period of time in the branches of learning required by law to be taught in the public schools, or has already acquired the branches of learning required by law to be taught in the public schools, or if his physical or mental condition is such as to render such attendance inexpedient or impracticable. Every person having under his control a child as described in this section shall cause such child to attend school as required by this section.

SECT. 13. The state board of education shall prescribe the form of census required by section sixteen of this act, of registers to be kept in the public schools, and of returns to be made by school committees; shall annually on or before the third Wednesday in January lay before the legislature a report containing a printed abstract of

said returns and a detailed report of the doings of the board, with such observations upon the condition and efficiency of the system of popular education and such suggestions in regard to the most practicable means of improving and extending it, as the board may see fit to make.

SECT. 14. The secretary of the state board of education shall send forms for the census, the school registers for public schools, forms for the returns to be made by school committees, the annual report of the board, and his own annual report, as soon as may be after they are ready for distribution, to the secretary of the school committee of each town and city, and it shall be the duty of such secretary on receipt thereof to deliver the same to the several persons charged with the duties in connection therewith, and to send to the secretary of the state board of education a list of the private schools in the town or city, together with the names of the principals of such schools.

SECT. 15. The secretary of every school committee who fails to receive, on or before the fifth day of April, blank forms of inquiry for school returns shall forthwith notify the secretary of the state board of education thereof, who shall thereupon transmit such forms to the secretary aforesaid.

SECT. 16. The school committees of all towns and cities shall annually ascertain and record the names, ages and such other information as may be designated by the state board of education, of all persons between five and fifteen years of age, and of all minors over fourteen years of age who cannot read at sight and write legibly simple sentences in the English language, residing in their respective towns and cities on the first day of September, and such record shall be completed on or before the first day of October. The first census under the provisions of this section shall be taken in the year eighteen hundred and ninety-nine. Whoever has under his control a minor over five years of age and withholds information in his possession sought by a school committee or its agents relating to the items required to be ascertained by this section, or falsifies in regard to the same, shall forfeit and pay a fine of not more than fifty dollars.

SECT. 17. The chairman and the secretary of each school committee shall annually on or before the last day of April transmit to the secretary of the state board of education a certificate filled out, signed and sworn to by them as follows:—We, the chairman and the secretary of the school committee of _____ hereby certify that on the first day of _____ next preceding the date of this certificate, there were residing in said town (or city) the number of _____ persons between the ages of five and fifteen years, and the number of _____ persons between the ages of seven and fourteen years.

We further certify that said town (or city) raised the sum of _____ dollars for the support of the public schools for the preceding year, including only the wages and board of teachers, the transportation of children, fuel for said schools, and the care of fires and schoolrooms; and maintained during said year each of the schools required to be kept by section one of the act relative to school attendance and truancy for a period of not less than thirty-two weeks; and we further certify that said town (or city) maintained during said year _____ school required by section two of said act, for a period of _____ months and _____ days.

*Chairman,
Secretary,
of the school committee.*

On this _____ day of _____ personally appeared the chairman and the secretary (above-named) of the school committee of _____, and made oath that the above certificate by them subscribed is true.

Before me,

Justice of the Peace.

SECT. 18. School committees shall cause the school registers to be faithfully kept in all the public schools of their respective towns and cities, and shall annually, on or before the last day of April, make returns on the aforesaid forms of inquiry to the secretary of the state board of education; and school committees of towns shall specify in said returns the purposes to which the money received by their respective towns from the income of the school fund has been appropriated; in such returns twenty days or forty half days of actual session shall be counted as one month.

SECT. 19. The several school teachers shall faithfully keep the registers of attendance daily, and make due return thereof to the school committee or to such person as such committee may designate. No teacher of a public school shall receive payment for services for the two weeks preceding the close of any single term until the register, properly filled up and completed, is so returned. All registers shall be kept at the schools, and at all times during the school hours shall be open to the inspection of the school committee, the superintendent of schools, the truant officers, and the secretary and agents of the state board of education. In reckoning the average membership and the percentage of attendance in the schools no pupil's name shall be omitted in counting the number of persons belonging to the school and the number of absences of such persons, until it is known that such pupil has withdrawn from the school without intention of returning, or, in the absence of such knowledge, until ten consecutive days of absence have been recorded; but nothing in this provision

for computing the average membership and the percentage of attendance shall be construed to invalidate procedure against habitual truants, absentees or school offenders, or other persons, as provided in sections twenty-four to twenty-six inclusive and section thirty-one of this act. A pupil who is not present during at least half of a session shall be marked and counted as absent for that session.

SECT. 20. If a return is found to be irregular or incorrect the secretary of the state board of education shall forthwith return the same with a statement of all deficiencies therein to the school committee for correction, and said committee shall promptly correct and return the same.

SECT. 21. A town the report or returns of which do not reach the office of the secretary of the state board of education on or before the fifteenth day of May shall forfeit ten per cent. of the income of the school fund to which such town would otherwise have been entitled; if such report or returns fail to reach said office before the first day of June then the town's share of said income shall be retained by the treasurer of the Commonwealth; and any amount so retained shall be added to the principal of the school fund. Any town not entitled to a portion of the school fund, and any city, the report or returns of which fail to reach said office on or before the first day of June, shall forfeit to the school fund two hundred dollars.

SECT. 22. The county commissioners of each county, the counties of Barnstable, Berkshire, Dukes County and Nantucket excepted, shall establish and maintain either separately or conjointly with the commissioners of other counties as hereinafter provided, in a suitable place, not at or near a penal institution, a truant school for the instruction and training of persons committed thereto as habitual truants, absentees or school offenders. The county commissioners of two or more counties may at the expense of said counties establish and maintain a union truant school, to be organized and controlled by the chairmen of the county commissioners of said counties. The county commissioners of each of the counties excepted as aforesaid shall assign a truant school established by law as the place for the instruction and training of persons committed within their respective counties as habitual truants, absentees or school offenders, and shall pay for their support in said school such reasonable sum as the county commissioners having control of said school may determine. For the purposes of this act the parental school of the city of Boston, established under chapter two hundred and eighty-two of the acts of the year eighteen hundred and eighty-six and acts in amendment thereof and in addition thereto, shall be deemed the county truant school of the county of Suffolk, and the towns of Revere and Winthrop and the city of Chelsea shall for this purpose be considered as located within

the county of Middlesex. When an habitual truant, absentee or school offender is committed under this act to a county truant school the town or city from which such child is committed shall pay to the county within which such town or city is located one dollar a week towards his support in said school : *provided*, that the towns of Revere and Winthrop and the city of Chelsea shall pay to the county of Middlesex for the support of each child committed to the truant school of said county two dollars and fifty cents per week, and such additional sums for each child as shall cover the actual cost of maintenance.

SECT. 23. County truant schools shall be subject to visitation by the state board of education and by the state board of lunacy and charity ; and said boards shall report thereon annually to the legislature.

SECT. 24. Every habitual truant, that is, every child between seven and fourteen years of age who wilfully and habitually absents himself from school contrary to the provisions of section twelve of this act, upon complaint by a truant officer, and conviction thereof, may be committed, if a boy, to a county truant school for a period not exceeding two years, and if a girl, to the state industrial school for girls, unless such child is placed on probation as provided in section twenty-eight of this act.

SECT. 25. Every habitual absentee, that is, every child between seven and sixteen years of age who may be found wandering about in the streets or public places of any town or city of the Commonwealth, having no lawful occupation, habitually not attending school, and growing up in idleness and ignorance, upon complaint by a truant officer or any other person, and conviction thereof, may be committed, if a boy, at the discretion of the court, to a county truant school for a period not exceeding two years, or to the Lyman school for boys, and, if a girl, to the state industrial school for girls, unless such child is placed on probation as provided in section twenty-eight of this act.

SECT. 26. Every habitual school offender, that is, every child under fourteen years of age who persistently violates the reasonable regulations of the school which he attends, or otherwise persistently misbehaves therein, so as to render himself a fit subject for exclusion therefrom, upon complaint by a truant officer, and conviction thereof, may be committed, if a boy, at the discretion of the court, to a county truant school for a period not exceeding two years, or to the Lyman school for boys, and, if a girl, to the state industrial school for girls, unless such child is placed on probation as provided in section twenty-eight of this act.

SECT. 27. Any court or magistrate by whom a child is committed to a county truant school may make such order as said court or mag-

istrate deems expedient concerning the payment by the parents of such child to the county, of the cost of the support of any such child while in said school, and may from time to time revise and alter such order, or make a new order, as the circumstances of the parents may justify.

SECT. 28. Any court or magistrate by whom a child has been convicted of an offence under this act may in his discretion place such child on probation under the oversight of a truant officer of the town or city in which the child resides, or of a probation officer of said court, for such period and upon such conditions as said court or magistrate may deem best; and within such period, if the child violates the conditions of his probation, such truant officer or probation officer may without warrant or other process take the child before the court, and the court may thereupon proceed to sentence or may make any other lawful disposition of the case.

SECT. 29. County commissioners, whenever they think it will be for the best interest of any child committed to a county truant school under their control, and after due notice and an opportunity to be heard have been given to the superintendent of schools, or, where there is no superintendent, to the school committee of the town or city from which such child was committed to said school, may permit such child to be at liberty, upon such conditions as said commissioners may deem best; or, with the approval of a justice of the court which imposed the sentence, they may discharge such child from said school; and in case of such parole or discharge the trustees shall make an entry upon their records of the name of such child, the date of such parole or discharge, and the reason therefor, and a copy of such record shall be transmitted to the court or magistrate by whom such child was committed, and to the school committee of the town or city from which such child was committed. If any child who is permitted to be at liberty, as provided by this section, violates, in the opinion of said commissioners, the conditions of his parole at any time previous to the expiration of the term for which such child was committed to said school, they may revoke such parole. Upon evidence from a superintendent of schools or a school committee, satisfactory to said commissioners, of the violation by a child of the conditions of his parole, it shall be the duty of said commissioners to revoke such parole. Said commissioners may issue an order directed to the truant or police officers of any town or city to arrest such child wherever found and return him to said school; and any such officer holding such order shall arrest such child and return him to said school, which may thereupon hold him, subject to the provisions of this act, for the unexpired portion of the term of the original sentence. Said commissioners shall meet the expense attending such

arrest and return, so far as approved by them, at the cost of the county or counties maintaining said school. But releases from the parental school of the city of Boston shall be governed by the provisions of chapter five hundred and fourteen of the acts of the year eighteen hundred and ninety-six.

SECT. 30. Any inmate of a county truant school who persistently violates the reasonable regulations of said school, or is guilty of indecent or immoral conduct, or otherwise grossly misbehaves, so as to render himself an unfit subject for retention therein, upon complaint by the county commissioners in control of said school, and conviction thereof, may be committed by the court, if a boy under fifteen years of age, to the Lyman school for boys; if a boy over fifteen years of age, to the Massachusetts reformatory at Concord. The period of commitment to said institutions shall be determined by the laws and regulations governing commitments thereto.

SECT. 31. Any person having under his control a child between seven and fourteen years of age who fails for five day sessions or ten half day sessions within any period of six months while under such control, to cause such child to attend school as required by section twelve of this act, the physical or mental condition of such child not being such as to render his attendance at school harmful or impracticable, upon complaint by a truant officer, and conviction thereof, shall forfeit and pay a fine of not more than twenty dollars. Any person who induces or attempts to induce any child to absent himself unlawfully from school, or employs or harbors while school is in session any child absent unlawfully from school, shall forfeit and pay a fine of not more than fifty dollars.

SECT. 32. Police, municipal and district courts, trial justices, and judges of probate courts, shall have jurisdiction of all cases arising under this act relating to persons residing in their respective jurisdictions. Upon a complaint for an offence under this act a summons shall issue instead of a warrant for arrest, unless in the judgment of the court or magistrate receiving the complaint there is reason to believe that the accused will not appear upon a summons. A warrant may issue at any time after the issue of such summons, if occasion arises, whether or not the summons has been served. Such summons or warrant may be served, at the discretion of the court or magistrate, by a truant officer or by any officer empowered to serve criminal process. Upon complaint against a child under this act the parents, guardian or custodian of the child shall be notified as is required by law in the case of a juvenile offender. No child under seventeen years of age shall be committed under this act, except to a county truant school, and no child against whom complaint as an habitual absentee is brought under section twenty-five of this act by

any other person than a truant officer shall be committed under this act, unless due notice and an opportunity to be heard have been given to the state board of lunacy and charity.

SECT. 33. The school committee of every town and city shall appoint and fix the compensation of one or more persons to be designated as truant officers, and shall make rules and regulations governing said officers. Truant officers shall not receive fees for their services. The school committees of two or more towns or cities may employ the same truant officer or officers.

SECT. 34. The truant officers of towns and cities shall inquire into all cases arising under sections eleven, twelve, twenty-four to twenty-six inclusive and thirty-one of this act, and may make complaints, serve legal processes, and carry into execution judgments thereunder. They shall perform the duties of oversight of children placed on probation as may be required of them under section twenty-eight of this act. A truant officer of any town or city may apprehend and take to school, without warrant, any truant or absentee found wandering about in the streets or public places thereof.

SECT. 35. Section three of chapter one hundred and eighty-one of the acts of the year eighteen hundred and eighty-two, as amended by section four of chapter one hundred and one of the acts of the year eighteen hundred and eighty-six, by section one of chapter three hundred and thirty of the acts of the same year, and by section one of chapter two hundred and forty-eight of the acts of the year eighteen hundred and eighty-eight, is hereby amended by striking out the whole of said section and inserting in place thereof the following:—
Section 3. Whenever it shall be made to appear to any court or magistrate after due complaint setting forth the facts relied upon, and a hearing thereon, that within the jurisdiction of such court or magistrate any child under sixteen years of age, by reason of orphanage, or of the neglect, crime, drunkenness or other vice of his parents, is growing up without education or salutary control, and in circumstances exposing him to lead an idle and dissolute life, or is dependent upon public charity, such court or magistrate shall, after notice to the state board of lunacy and charity, commit such child, if he has no known settlement in this Commonwealth, to the custody of said board, and if he has a known settlement then to the overseers of the poor of the city or town in which he has such settlement, except in the city of Boston, and if he has a settlement in said city, then to the directors of public institutions of said city, until he arrives at the age of twenty-one years, or for any less time; and the said board, overseers and directors are authorized to make all needful arrangements for the care and maintenance of children so committed, in some state, municipal or town institution, or in some respectable family, and to

discharge such children from their custody whenever the object of their commitment has been accomplished: *provided, however*, that when it shall be made to appear that the place of legal settlement of any of such children has not within its control any institution in which they may be lawfully maintained such court or magistrate may commit such children to the custody of the state board of lunacy and charity, and the authority vested in overseers of the poor under this section relative to children who have a known settlement may be exercised by said state board, in the same manner and to the same extent as it might have been exercised by said overseers had such children been committed to them.

SECT. 36. Sections three and seven of chapter forty-one, sections one, two, seven, twelve, thirteen and sixteen of chapter forty-four, sections one to seven inclusive, ten to thirteen inclusive and section fifteen of chapter forty-six, section ten of chapter forty-eight, and section nineteen of chapter two hundred and twenty, of the Public Statutes; chapter one hundred and seventy-four of the acts of the year eighteen hundred and eighty-three; chapter two hundred and thirty-six of the acts of the year eighteen hundred and eighty-six; chapter ninety-nine of the acts of the year eighteen hundred and ninety-one; chapter two hundred and thirty-one, sections one to four inclusive of chapter four hundred and thirty-six, chapter four hundred and seventy-one, and sections one, and three to twenty-nine inclusive, of chapter four hundred and ninety-eight of the acts of the year eighteen hundred and ninety-four; chapters two hundred and twelve and two hundred and sixteen of the acts of the year eighteen hundred and ninety-five; chapters three hundred and sixty and three hundred and eighty-two of the acts of the year eighteen hundred and ninety-six, and all other acts and parts of acts inconsistent herewith, are hereby repealed.

SECT. 37. This act shall take effect on the first day of September in the year eighteen hundred and ninety-eight.

Approved June 2, 1898.

Chapter 548. — *An Act to revise and codify the laws relative to elections.*

SECT. 331. . . . The town shall likewise at its annual meeting or at a meeting held in the same month in which the annual meeting occurs, choose members of the school committee, which committee shall consist of any number of persons divisible by three which said town has decided to elect, one third thereof to be elected annually, and to continue in office three years. No person shall be ineligible for said office by reason of sex. If a town fails or neglects to choose

such committee, an election at a subsequent meeting shall be valid, and the town may, at its annual meeting, vote to increase or diminish the number of its school committee; and any town in which ballots for town officers are provided at the expense of the town may vote so to change the number of its school committee at a meeting, other than the annual meeting, called for the purpose and held thirty days at least before the annual meeting at which such change is to become operative. Such increase shall be made by adding one or more to each class, to hold office according to the tenure of the class to which they are severally chosen. Such diminution shall be made by choosing, annually, such number as will in three years effect it, and a vote to diminish shall remain in force until the diminution under it is accomplished. . . .

Approved June 21, 1898.

Chapter 580.—*An Act to amend chapter four hundred and ninety-six of the acts of the year eighteen hundred and ninety-eight relative to school attendance and truancy.*

SECTION 1. Section twenty-nine of chapter four hundred and ninety-six of the acts of the year eighteen hundred and ninety-eight, as printed in the pamphlet edition of the acts and resolves, is hereby amended by adding at the end of said section the following words:— and shall be made by the trustees for children of said city, who shall hereafter exclusively have and exercise the powers given to the institutions commissioner of said city by said chapter.

SECT. 2. Section thirty-five of said chapter is hereby amended by striking out all of said section between and including the word “section,” in the first line, and the word “whenever,” in the eighth* line; also by striking out in the twentieth† line, the words “directors of public institutions,” and inserting in place thereof the words:— trustees for children,— also by striking out in the twenty-second‡ line, the word “directors,” and inserting in place thereof the word:— trustees, —

SECT. 3. This act shall take effect upon its passage.

Approved June 23, 1898.

* Ninth line as printed in this pamphlet.

† Twenty-second line as printed in this pamphlet.

‡ Twenty-fourth line as printed in this pamphlet.

MASSACHUSETTS SCHOOL LEGISLATION.

Respects wherein the Massachusetts Legislation of 1898 concerning the Employment of Children at Labor and the Attendance of Children at School differs in its Provisions from the Legislation previously in Force.*

I.

EMPLOYMENT OF CHILDREN.

[CHAPTER 494, ACTS OF 1898.]

Certain Employment of Children under Fourteen forbidden.—Section 1 changes from thirteen to fourteen the age below which no child shall be employed in a factory, workshop or mercantile establishment. It forbids his employment for wages while school is in session and all employment before six in the morning and after seven in the evening (old). It strikes out the requirement of thirty weeks' attendance at school during the year after a child is thirteen before he can be granted a certificate that he is fourteen, attendance now being required all the time up to fourteen.

Employment of Minors between Fourteen and Sixteen; also of Illiterate Minors.—Section 2 requires that no child under sixteen years of age shall be employed in a factory, workshop or mercantile establishment *unless* the employer:—

1. Procures and keeps on file, and accessible to truant officers, the district police and inspectors of factories, age and schooling certificates for all such children employed, the limits of age for such children now being fourteen years and sixteen years instead of thirteen and sixteen, as heretofore.

2. Keeps *two* complete lists, instead of one, as heretofore, of all such children employed therein, one on file, as heretofore, and the additional one now required conspicuously posted near the principal entrance of the building in which such children are employed.

3. Keeps on file a complete list of *all minors* employed who cannot read at sight and write simple sentences in the English language, — a new requirement and applicable to persons from fourteen to twenty-one years of age.

4. Sends to the superintendent of schools, or where there is no such superintendent, to the school committee, the names of all such illiterate minors employed, — also a new requirement.

* Since the object of this circular is mainly to call attention to the principal changes made in the new legislation, it omits many of its minor details and a large part of its language. *Careful reference, therefore, should be made to the full text of the statutes themselves.*

Signing the Age and Schooling Certificate. — Section 3 re-enacts certain provisions about the signing of the age and schooling certificate. It authorizes a committee which employs no superintendent to appoint any person, not necessarily one of its own members as heretofore, to sign certificates, and omits the provision which authorized any justice of the peace to administer the oath provided for in the certificate.

Evidence of the Minor's Age. — Section 4 simplifies the old law somewhat with reference to the evidence of age; it designates the last school census, the certificate of birth or baptism, or the register of birth with a town or city clerk, as means of furnishing satisfactory evidence of the child's age; or other satisfactory evidence may be accepted. It omits that provision of the old law which designated the circumstances under which a child of thirteen might receive an age and schooling certificate, the new law forbidding the granting of such a certificate to a child under fourteen.

An Employment Ticket to precede the Granting of an Age and Schooling Certificate. — Section 5 provides that before a child under *sixteen*, instead of fourteen, as in the old law, can be granted an age and schooling certificate, he must present to the person authorized to approve and sign the same an *employment ticket*, duly filled out and signed. A section of the certificate declares that the certificate is to be surrendered to the child when he leaves the employer's service (old); but if not claimed by said child within thirty days from the ending of his service, it is to be returned by the employer to the superintendent of schools, or, where there is no superintendent, to the school committee (new).

Certain Penalties modified. — Section 6 modifies somewhat the penalties prescribed in the old law. It limits to a fine the penalty for certifying to any materially false statement in the age and schooling certificate, omitting imprisonment.

Conditions under which Illiterate Minors may be employed. — Section 7 renews old provisions, that no minor who cannot read at sight and write simple sentences in the English language shall be employed while a public evening school is maintained in the town or city in which he resides, *unless* he attends a day school, or has a permit issued by the superintendent of schools; or *unless* his teacher certifies each week that he is in regular attendance at such evening school (not in attendance seventy per cent. of the time, as heretofore).

Truant Officers authorized to visit Factories. — Section 8 authorizes truant officers to visit factories, workshops and manufacturing establishments without that special direction from the school committee which the old law required, and requires these officers to report any cases of illegal employment of minors therein to the school committees of their respective towns and cities and to the chief of the district police, or to the inspector of factories for the district. It provides that complaints under this act shall be brought by inspectors of factories only, not by truant officers or inspectors, as in the old law.

Repeal of Statutes; Date of Going into Effect. — Section 9 repeals certain acts, and section 10 fixes Sept. 1, 1898, as the date for the new law to take effect.

II.

ATTENDANCE AND TRUANCY.

[CHAPTER 496, ACTS OF 1898.]

Length of Schooling and Subjects to be taught. — Section 1 extends to thirty-two weeks the time the public schools must be maintained. The time required under the old law was thirty-two weeks for towns of four thousand or more inhabitants, and twenty-four weeks for all other towns. To the studies that may be taught at the option of the school committee are added book-keeping, geometry, one or more foreign languages, the elements of the natural sciences, kindergarten, manual and physical training, civil government and ethics, with such other subjects as the school committee may deem expedient.

The High School. — Section 2 requires every town of five hundred families or householders, and permits any town, to maintain a high school, adequately equipped, to be kept by a principal and such assistants as may be needed, of competent ability and good morals. The distinction hitherto made between two grades of high schools is abolished.

The following requirements apply to every high school, whether it is kept in obedience to the statute or voluntarily: —

1. Instruction shall be given in such subjects designated in section 1 as it may be deemed expedient to teach in the high school, and in such additional subjects as may be required for the general purpose of training and culture, as well as for the special purpose of preparing pupils for admission to State normal schools, technical schools and colleges (new).

2. There shall be at least one course of study four years in length (new), and the school shall be kept for forty weeks at least, exclusive of vacations, in each year (old).

3. A town may, if it chooses, meet only a portion of the foregoing requirements in its own high school; *provided*, that it shall make adequate provisions for meeting the rest of said requirements in the high school of another town or any city (new).

Payment of High School Tuition required of Certain Towns. — Section 3, which provides that any town of less than five hundred families or householders that does not maintain a high school shall pay for tuition in a high school of another town or city (old), requires that a child who is to attend the high school in such other town or city shall have completed the course of instruction provided by the former town, and shall be, in the opinion of the superintendent of schools or the school committee of said former town, properly qualified to enter such high school (new). Towns whose valuation is under \$500,000 are entitled to State reimbursement for high school tuition expenses incurred under this section, but not for high school transportation expenses (old).

Manual Training. — Section 4 requires that every town or city of twenty thousand or more inhabitants shall maintain the teaching of manual training not only in connection with its high school system (old) but also in connection with its elementary schools (new).

Section 5, which requires the maintenance of an evening school by every town of ten thousand or more inhabitants and permits it by all towns (old), restricts the provision to children over fourteen years of age (new), and, among the branches to be taught, specifies "industrial drawing, both free hand and mechanical" (new).

Evening High Schools. — Section 6 re-enacts a section of the old law, requiring evening high schools in cities of fifty thousand or more inhabitants.

Right of the Child to Schooling. — Section 7 declares it to be the right of every child to attend the public schools in the town or city in which his parent or guardian has a legal residence (old), or in which the child himself actually resides (new).

Payment for the Child's Schooling in Certain Cases. — Section 8 makes provision for the payment of a child's schooling in a town or city other than that in which his parent or guardian resides : —

1. By the parent or guardian of the child if the child resides in said town or city for the sole purpose of attending school there (old), the sum to be paid being as defined in the section (new).

2. By the State for "State wards" between five and fifteen years of age, the sum to be paid being fifty cents for each week of five days (old), including the expense incurred for transporting such wards to school (new).*

3. By the city of Boston for children "placed out" by the trustees for children of said city or kept under the control of said trustees, the sum to be paid being fifty cents for each week of five days, including the expense incurred for transporting such children to school (new).

4. By institutions containing more than six inmates in any town of less than ten thousand inhabitants for any child so attending between the ages of five and fifteen years, not theretofore resident in such town, the sum to be paid being determined in accordance with the provisions of the section (new).

Redress for Unlawful Exclusion from School. — Section 9, which provides for redress in case a child is unlawfully excluded from school, omits the requirement in the old law that teachers shall state in writing the cause for such exclusion.

Permission to attend School out of Town. — Section 10 re-enacts the old provision that permits a child, with the consent of the school committee, and at the expense of the town or city in which the child lives, to attend school in another town or city.

Contagious Diseases. — Section 11 adds measles to small-pox, diphtheria and scarlet-fever as a reason for restraining a child from attending school. Three days must have elapsed since recovery in the case of measles (two weeks in the other cases) before return to school is permissible.

Compulsory Attendance. — Section 12 makes attendance upon a public school compulsory for all children between the ages of seven (instead of eight, as heretofore) and fourteen years during the entire time the public schools are in session, instead of thirty weeks with an allowance for two weeks of unexcused absence as heretofore.

* Chapter 108, Resolves of 1898, authorizes the Commonwealth to pay transportation expenses, in certain cases, from April 1, 1896, to Sept. 1, 1898.

Excepted from these provisions are (a) children that are attending approved private day schools or receiving instruction equal to that given in the public schools (old); (b) children that are compelled by necessity to be absent, including children whose physical or mental condition renders their attendance inexpedient or impracticable (old).

The provision in the old law which extended to fifteen years the age of compulsory attendance wherever manual training was taught is repealed.

A clause in this section requires parents or guardians to cause children under their control to attend school according to law.

School Census Forms.—Section 13, in addition to certain forms required under the old law, requires the Board of Education to prescribe the forms for a school census.

Secretary of the School Committee to receive Forms and to discharge Certain Duties.—Section 14 provides for sending, with other forms, as hitherto, forms for the census to the secretary of each school committee (instead of to the town clerk, as heretofore), whose duty it is to deliver the same to the several persons charged with duties in connection therewith. It is also made the duty of this officer to forward to the secretary of the State Board of Education a list of the private schools in the town or city, together with the names of their principals.

Failure to receive Forms of Inquiry.—Section 15 relates to the duty of the secretary of the school committee (instead of the town clerk) in case of his failure to receive the forms that should be sent to him.

Taking of the School Census.—Section 16 provides that the school census shall include the names and ages, with such other facts as may be designated by the State Board of Education, (a) of all persons between five and fifteen years of age, and (b) of all minors over fourteen years of age who cannot read at sight and write simple sentences in the English language residing in their several towns and cities on the first day of September, such record to be completed on or before the first day of October. The first census under this requirement is to be taken in September, 1899.

Returns of School Committees.—Section 17, which relates to statistical returns from school committees, requires (1) that the sworn certificate to accompany such returns shall be signed uniformly by the chairman and secretary of the school committee (instead of by a majority of the school committee, as in certain cases heretofore); and (2) that the certificate shall state the number of children in town between seven and fourteen years of age, in addition to such other items as are required by law to be returned.

Duties of the School Committee with Reference to Registers and to Money from the School Fund.—Section 18 is a re-enactment of the old law requiring school committees to cause school registers to be faithfully kept and to specify the purposes for which money from the school fund is used.

The Teacher's Duty in Connection with the School Register.—Section 19, which re-enacts the law requiring teachers faithfully to keep school registers, further provides:—

1. That registers of attendance shall be kept daily.
2. That they shall be kept at the schools and open to inspection during school hours.
3. That no pupil's name shall be omitted in counting the number of per-

sons belonging to the school and the number of absences of such pupil until ten consecutive days of absences have been recorded, or until it is known that such pupil has withdrawn from the school without intention of returning (new).

4. That a pupil who is not present at least half of a session shall be marked and counted as absent for that session (new).

Irregular or Delayed Returns.—Sections 20 and 21 are re-enactments of the old law concerning school committee's returns which are irregular, incomplete or too long delayed.

Establishment of Truant Schools.—Section 22 is largely a re-enactment of the old law requiring county commissioners to establish and maintain county truant schools in their respective counties. The principal added provisions in the present law are :—

1. The county commissioners of Barnstable, Berkshire, Dukes and Nantucket counties are exempt from establishing truant schools, but are required, instead, to assign a truant school established by law as the place for the instruction and training of persons committed to truant schools from their respective counties.

2. For the purposes of this act, the Parental School of Boston is to be deemed the county truant school for Suffolk County.

3. For the purposes of this act Chelsea, Revere and Winthrop are to be considered as belonging to Middlesex County.

4. For the maintenance of each child sent to a truant school, towns and cities other than the above named are to pay one dollar a week (instead of two dollars, as heretofore), the above named being required to pay two dollars and fifty cents a week and such additional sums as shall cover the actual cost of maintenance.

Visitation of Truant Schools.—Section 23 provides that the State Board of Education and the State Board of Lunacy and Charity shall visit the county truant schools and report concerning them annually to the Legislature (new).

Habitual Truants, Absentees and School Offenders.—Sections 24, 25 and 26 name and more fully describe three classes of children that may be committed to truant schools, or elsewhere, under this act, namely :—

1. Habitual truants, — children between seven and fourteen years of age who wilfully and habitually absent themselves from school.

2. Habitual absentees, — children between seven and sixteen years of age who may be found wandering about in the streets or public places, having no lawful occupation, habitually not attending school and growing up in idleness and ignorance.

3. Habitual school offenders, — children under fourteen years of age who persistently violate the reasonable regulations of the school which they attend or otherwise misbehave so as to render themselves fit subjects for exclusion therefrom.

Commitments of such children, in case of conviction, if boys, may be made to county truant schools (old), or, in certain cases, to the Lyman School for Boys (new); if girls, to the State Industrial School for Girls (new); or they may be placed on probation, as provided in section 28 of this act (new).

Support of a Child in a Truant School to be paid for by the Parent if so ordered.—Section 27 provides for the payment, at the discretion of the court, by the parent or guardian for the support of a child while an inmate of a truant school (new).

Probation.—Section 28 provides for placing upon probation under a truant officer or a probation officer a child convicted of an offence under this act, and for other disposition of such child in case he violates the conditions of his probation (new).

Parole and Discharge.—Section 29 makes new provisions (1) for the parole and discharge of a child committed to a county truant school; (2) for revoking such parole and for the arrest of the paroled child; and (3) for the right of the superintendent or the school committee to be heard upon a proposal to parole or to revoke a parole.

Releases from the Parental School of Boston are to be governed by the provisions of chapter 514 of the Acts of the year 1896.

Transfer from Truant Schools in Certain Cases.—Section 30 provides for the transfer, by order of the court, from a county truant school to the Lyman School for Boys or to the Concord Reformatory, of any inmate who persistently violates the reasonable regulations of said truant school or who is guilty of indecent or immoral conduct while connected therewith (new).

Penalties for Neglect to send Children to School and for inducing Unlawful Absence.—Section 31 provides:

1. That any person who, having under his control a child between seven (instead of eight, as heretofore) and fourteen years of age, fails for five day sessions or for ten half-day sessions within any period of six months (this period is new) to cause such child to attend school as required by law, shall forfeit and pay a fine of not more than twenty dollars. The child's attendance is required for the full time the school is kept, instead of thirty weeks, as heretofore, and the allowance of two weeks for unexcused absence is no longer permitted.

2. That a fine of not more than fifty dollars, (instead of not less than twenty nor more than fifty) shall be imposed upon a person for inducing any child to absent himself unlawfully from school, or for employing or harboring a child unlawfully absent from school.

Jurisdiction and Procedure.—Section 32 tells what courts shall have jurisdiction in cases arising under this act and indicates the method of procedure (partly new).

Truant Officers.—Section 33 requires the school committee of every town and city (1) to appoint one or more persons (instead of two, as in the old law) to be designated as truant officers; (2) to make rules and regulations governing said officers; and (3) authorizes school committees of two or more towns or cities to employ the same truant officer or officers (new).

Duties of Truant Officers.—Section 34 directs truant officers to inquire into all cases arising under this act and authorizes them to make complaints, serve processes and carry into execution judgments thereunder. The old provision that they shall do this "under direction of the school committee" is dropped. They are to proceed directly under the provisions of this act, by-laws having been done away with. They are also to serve as probation officers as required by section 28 (new).

Neglected Children. — Section 35 provides for the commitment of neglected children, so called, up to the age of sixteen (instead of fourteen, as in the law of 1888), as follows : —

1. To the custody of the State Board of Lunacy and Charity if the children have no known settlement.

2. To the overseers of the poor in towns and cities in which the children are known to have a settlement.

3. To the directors of public institutions in the city of Boston if such children have a settlement in said city.

The section further provides for the maintenance and disposition of children so committed.

Repeal of Statutes. — Section 36 repeals certain acts, and section 37 fixes Sept. 1, 1898, as the date for this act (except section 16) to go into effect.*

* Towns that have made school appropriations for less than thirty-two weeks in accordance with their right under the old law, will not be required, according to a decision by the Attorney-General, to lengthen their schooling to thirty-two weeks until they enter upon the next fiscal year thereafter. The returns of school committees to be made on or before May 1, 1899, will be based on the May census of 1898; returns to be made on or before May 1, 1900, will be based on the September census of 1899.

SPECIAL NOTE.

In the following abstract, it should have been noted, in connection with the returns of the town of Northbridge, that, owing to a change in the fiscal year of the town, its fiscal returns cover a period of only seven months. The place of Northbridge in the graduated tables this year does not, therefore, do justice to the town's liberality towards its schools.

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AN ABSTRACT

OF THE

SCHOOL RETURNS MADE BY THE SCHOOL COMMITTEES
OF THE SEVERAL TOWNS AND CITIES IN THE
COMMONWEALTH

FOR

THE SCHOOL YEAR, 1897-98.

BARNSTABLE COUNTY.

TOWNS.	Population - State Census, 1895.	Valuation - 1897.	No. of public schools.	No. of persons in town May 1, 1897, between 5 and 15 years of age.	No. of persons in town 8 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the public schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the public schools.
Barnstable,	4,055	\$3,943,940	23	620	423	821	3	83	423	671	626	.93	27
Bourne,	1,580	1,900,575	11	314	182	321	-	61	182	306	285	.92	12
Brewster,	1,901	533,270	5	163	103	150	-	30	103	132	120	.91	6
Chatham,	1,809	834,656	13	258	159	321	3	38	159	299	268	.90	13
Dennis,	2,545	1,105,120	13	381	269	488	1	87	293	408	386	.95	13
Eastham,	476	297,567	3	66	55	85	1	6	54	60	54	.90	3
Falmouth,	2,655	6,514,318	15	395	280	463	2	68	233	419	393	.92	17
Harwich,	2,532	1,088,254	12	396	233	424	-	28	233	320	288	.90	13
Mashpee,	330	198,440	3	58	36	72	4	4	40	62	57	.92	3
Orleans,	1,198	561,972	4	178	121	209	1	26	120	169	152	.90	5
Provincetown,	4,555	1,871,096	20	739	425	813	-	82	425	749	708	.94	23
Sandwich,	1,580	923,700	9	213	170	273	2	39	170	226	214	.94	11
Truro,	815	326,460	6	155	96	180	-	19	96	148	137	.92	6
Wellfleet,	968	619,300	6	130	71	168	-	27	76	139	129	.93	6
Yarmouth,	1,655	1,555,925	9	202	170	246	-	44	141	195	183	.94	9
Totals,	27,654	\$22,274,593	152	4,268	2,793	5,034	17	642	2,748	4,303	4,001	.93	167

BERKSHIRE COUNTY.

Adams,	7,837	\$4,550,643	42	2,134	1,166	2,255	-	103	1,300	1,808	1,723	.95	50
Alford,	280	171,633	2	31	15	31	-	2	21	22	17	.77	2
Becket,	888	416,218	8	187	125	202	2	2	127	142	125	.88	8
Cheshire,	1,176	677,305	8	179	123	228	4	21	131	177	165	.94	8

SCHOOL RETURNS.

iii

Clarksburg,	1,009	222,084	4	255	106	238	-	6	103	167	149	89	4
Dalton,	3,210	2,407,938	19	562	353	674	13	67	400	578	545	94	22
Egremont,	836	434,126	4	124	67	121	1	7	84	92	80	88	4
Florida,	425	152,012	4	90	48	95	1	4	48	72	59	83	4
Great Barrington,	4,791	3,392,320	28	752	439	932	6	138	600	862	744	86	29
Hancock,	511	301,794	5	84	54	100	2	9	56	75	64	85	5
Hinsdale,	1,650	629,893	11	243	167	318	12	11	167	263	231	88	11
Lanesborough,	848	457,489	6	133	112	163	2	1	112	115	107	93	6
Lee,	4,066	1,727,229	14	604	373	662	5	108	337	544	508	93	18
Lenox,	2,872	3,605,485	15	522	327	716	-	57	454	532	512	96	17
Monterey,	464	229,155	6	97	62	109	1	16	61	79	72	91	6
Mount Washington,	136	81,542	2	25	13	26	-	1	14	21	18	85	2
New Ashford,	116	55,955	1	22	12	26	-	8	12	19	16	84	1
New Marlborough,	1,288	501,640	10	214	135	252	2	21	140	184	159	87	11
North Adams,	19,135	8,344,412	68	3,985	2,641	3,795	82	259	1,557	2,846	2,651	93	91
Otis,	518	202,332	5	78	60	87	2	4	61	65	56	86	5
Peru,	305	115,455	4	61	40	55	2	1	45	47	38	81	4
Pittsfield,	20,461	14,579,662	99	3,946	2,387	4,421	24	330	2,440	3,565	3,306	93	110
Richmond,	701	328,670	6	143	85	141	1	6	101	113	101	89	6
Sandisfield,	802	338,960	10	138	94	147	4	11	89	110	97	88	10
Savoy,	504	166,071	7	95	62	103	2	3	62	87	74	85	7
Sheffield,	1,897	850,140	11	315	197	358	4	35	200	270	238	88	12
Stockbridge,	2,077	3,121,707	10	440	243	425	-	52	243	354	330	93	13
Tyringham,	363	213,437	5	54	32	57	-	3	32	46	41	90	5
Washington,	423	215,456	6	66	50	83	1	3	50	62	53	85	6
West Stockbridge,	1,257	430,864	8	228	143	261	3	29	146	217	195	90	8
Williamstown,	4,887	2,788,146	25	803	476	1,000	5	112	502	741	686	93	29
Windsor,	556	182,226	7	90	60	96	6	5	60	76	68	90	7
Totals,	86,292	\$52,091,969	460	16,680	10,267	18,157	187	1,435	9,755	14,351	13,228	92	521

BOARD OF EDUCATION.

BARNSTABLE COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended normal schools.	No. of teachers who have graduated from normal schools.	A'v'g wages per month of male teachers in public schools.	A'v'g wages per month of female teachers in public schools.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept for the entire year.	No. of schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of principal	
										No. of high schools.	No. of teachers.	No. of pupils.	How supported.	Length.		
														Months.		Days.
Barnstable,	8	23	15	11	\$73 89	\$41 45	198	8-10	-	1	3	82	Taxation.	10	\$1,000 00	
Bourne,	3	17	6	6	83 33	40 68	95-5	8-13	-	1	2	51	Taxation.	9-5	855 00	
Brewster,	2	7	1	1	70 00	38 00	42-10	8-10	-	1	2	42	Taxation.	8-10	977 50	
Chatham,	2	15	2	2	94 44	28 66	115-5	9	-	1	1	41	Taxation.	9	850 00	
Dennis,	7	12	-	-	66 66	34 44	111-3	8-1	-	2	2	77	Taxation.	{ 9 9 }	{ 855 00 765 00 }	
Eastham,	-	4	2	1	-	40 00	26-15	8-18	-	-	-	-	-	-	-	
Falmouth,	4	15	9	3	78 00	49 22	139	9-6	-	1	3	70	Part Tax.	9-15	1,400 00	
Harwich,	4	14	7	4	61 67	38 63	103-10	8-12	-	1	1	41	Taxation.	10	960 00	
Mashpee,	2	3	2	2	47 50	39 33	24	8	-	-	-	-	-	-	-	
Orleans,	1	4	3	3	100 00	40 00	36-4	9-1	-	1	2	52	Taxation.	9-16	1,000 00	
Provincetown,	3	21	3	3	96 10	32 10	178-4	8-18	-	1	3	75	Taxation.	9	1,026 00	
Sandwich,	2	13	1	1	105 36	36 03	77-10	8-12	-	1	2	33	Taxation.	9-10	1,000 00	
Truro,	-	9	3	2	-	38 00	54	9	-	-	-	-	-	-	-	
Wellfleet,	1	5	1	1	95 78	36 08	56-5	9-8	-	1	1	35	Taxation.	9-8	860 00	
Yarmouth,	4	8	1	1	75 66	40 00	81	9	-	1	1	28	Part Tax.	9	1,000 00	
Totals,	42	170	56	40	\$76 61	\$37 97	1,338-11	8-16	-	13	23	627	-	9-6	\$12,548 50	

BERKSHIRE COUNTY — CONTINUED.

Adams,	5	52	23	20	\$110 77	\$41 73	350-18	8-19	-	1	6	156	Taxation.	9-7	\$1,566 66
Alford,	-	2	-	-	-	24 00	16-2	8-1	-	-	-	-	-	-	-
Becket,	2	10	3	2	21 00	29 00	59-17	7-9	-	-	-	-	-	-	-
Cheshire,	-	8	1	1	-	35 66	72	9	-	1	1	37	Taxation.	9	504 00

SCHOOL RETURNS.

V

Clarksburg,	1	5	1	1	1	40 00	38 70	33-11	8-7	-	1	3	96	Taxation.	-	10	-	1,200 00
Dalton,	1	21	6	6	81	120 00	40 81	172	9-1	-	-	-	-	-	-	-	-	-
Egremont,	-	8	-	-	33 83	-	33 83	37-17	9-9	-	-	-	-	-	-	-	-	-
Florida,	-	5	3	3	35 00	-	35 00	28	7	-	-	-	-	-	-	-	-	-
Great Barrington,	1	30	6	5	145 00	145 00	34 14	265-20	9-4	-	1	3	99	Taxation.	-	10	-	1,450 00
Hancock,	1	6	1	1	34 00	-	28 39	39	7-16	-	-	-	-	-	-	-	-	600 00
Hinsdale,	1	15	1	-	64 84	64 84	32 00	99	9	-	1	1	36	Taxation.	-	9-5	-	-
Lanesborough,	-	7	1	1	-	-	32 90	47-15	7-13	-	1	3	107	Taxation.	-	9-15	-	1,200 00
Lee,	1	17	3	1	123 08	123 08	37 42	121	9-11	-	1	3	87	Taxation.	-	10	-	1,100 00
Lenox,	2	24	11	10	72 50	72 50	40 86	146	9-7	-	1	3	-	-	-	-	-	-
Monterey,	1	6	1	-	24 00	24 00	23 60	41-5	6-18	-	-	-	-	-	-	-	-	-
Mount Washington,	-	2	-	-	24 00	24 00	32 00	9	7	-	-	-	-	-	-	-	-	-
New Ashford,	1	1	-	-	40 00	40 00	26 51	75	8-7	-	-	-	-	-	-	-	-	-
New Marlborough,	1	14	2	2	32 00	32 00	48 00	571	8-8	-	1	7	195	Taxation.	-	10	-	2,200 00
North Adams,	8	73	23	20	119 23	119 23	26 00	35	7	-	-	-	-	-	-	-	-	-
Otis,	1	5	1	-	40 00	40 00	20 00	21-5	6-10	-	-	-	-	-	-	-	-	-
Peru,	-	5	-	-	-	-	20 00	85	7	-	-	-	-	-	-	-	-	-
Pittsfield,	10	107	27	26	92 60	92 60	41 54	915-15	9-13	-	1	10	301	Taxation.	-	9-16	-	1,800 00
Richmond,	-	9	1	1	-	-	27 20	51-12	8-12	-	-	-	-	-	-	-	-	-
Sandisfield,	-	14	1	1	-	-	20 85	73-5	7-6	1	-	-	-	-	-	-	-	-
Savoy,	-	8	2	1	-	-	28 00	52-10	7-15	-	-	-	-	-	-	-	-	-
Sheffield,	-	16	1	1	-	-	32 66	102-5	9-5	-	1	1	39	Taxation.	-	9-7	-	570 00
Stockbridge,	1	16	8	7	130 00	130 00	45 82	90-17	9-2	-	1	2	58	Taxation.	-	9-1	-	1,800 00
Tyringham,	-	5	-	-	-	-	26 00	37-10	7-10	-	-	-	-	-	-	-	-	-
Washington,	-	12	4	3	-	-	29 00	45-15	7-4	-	-	-	-	-	-	-	-	-
West Stockbridge,	2	7	3	2	46 00	46 00	34 00	77-5	9-13	-	1	4	58	Taxation.	-	9-9	-	1,000 00
Williamstown,	5	35	13	8	77 34	77 34	39 46	229-13	9-4	-	-	-	-	-	-	-	-	-
Windsor,	1	10	-	-	30 00	30 00	28 20	40	6-5	-	-	-	-	-	-	-	-	-
Totals,	51	559	145	122	\$79 84	\$79 84	\$37 71	3,971-17	8-12	1	12	44	1,269	-	-	9-11	-	\$14,990 66

BOARD OF EDUCATION.

BARNSTABLE COUNTY.—CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools or teachers, transportation, fuel, care of fires and schoolrooms—for 1897-98.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of superintendent of it.	Expense of books, stationery and school supplies.	Summaries (reports, censuses, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Barnstable,	\$15,850 03	\$2,048 20	\$238 35	\$1,000 00	\$1,200 00	\$476 32	—	\$476 36	\$824 92	\$19,689 66
Bourne,	6,214 16	918 22	107 03	295 31	909 44	335 24	—	—	926 30	10,758 91
Brewster,	2,617 60	112 00	95 00	103 04	279 38	135 14	—	—	40 82	3,531 08
Chatham,	4,252 71	—	500 00	—	300 00	83 50	—	—	400 93	5,588 78
Dennis,	6,500 00	—	175 00	487 50	531 18	36 34	—	—	431 09	8,208 27
Eastham,	500 00	—	1 86	97 83	116 44	148 86	—	—	60 02	1,212 49
Falmouth,	13,167 93	2,210 09	—	1,400 00	1,146 10	117 50	—	—	737 83	16,590 72
Harwich,	5,000 00	11 70	150 25	358 69	458 16	117 50	—	—	495 66	6,580 26
Mashpee,	729 57	—	30 00	21 87	192 95	17 23	—	98 17	20 76	1,110 65
Orleans,	3,884 94	894 79	1 29	130 43	254 07	5 00	—	—	171 97	4,447 70
Provincetown,	9,500 00	—	60 00	600 00	636 94	677 66	—	—	351 16	14,345 76
Sandwich,	4,340 56	257 00	120 65	295 31	632 75	127 64	—	—	130 20	5,647 11
Truro,	1,700 00	—	104 50	—	254 67	56 27	—	—	150 74	2,266 18
Wellfleet,	3,000 00	138 62	85 00	150 00	103 44	—	—	—	196 12	3,534 56
Yarmouth,	4,900 00	531 00	110 00	262 50	292 09	49 75	—	—	97 00	6,711 34
Totals,	\$82,547 50	\$7,121 62	\$1,778 93	\$5,262 48	\$7,307 61	\$2,266 45	\$4,350 35	\$574 53	\$5,135 52	\$109,223 37

BERKSHIRE COUNTY.—CONTINUED.

Adams,	\$28,042 23	—	\$175 00	\$1,800 00	\$3,028 54	\$498 12	—	\$1,375 00	\$1,536 53	\$30,455 42
Alford,	300 00	\$10 00	—	—	49 18	6 08	—	—	—	355 26
Becket,	1,500 00	35 00	18 80	200 19	109 00	—	—	33 00	6 71	1,867 70
Cheshire,	2,800 00	126 00	75 00	225 00	250 00	27 00	—	150 00	200 00	3,727 00

SCHOOL RETURNS.

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Clarksburg,	1,068 72	-	60 00	-	197 07	12 27	-	-	54 32	1,392 38
Dalton,	11,400 00	-	195 00	525 00	1,000 00	-	-	400 00	600 00	14,120 00
Egremont,	994 85	-	48 00	56 25	87 22	5 00	-	90 31	5 75	1,287 38
Florida,	1,000 00	25 00	55 00	125 88	148 66	12 00	-	80 00	50 80	1,472 34
Great Barrington,	12,883 10	346 34	300 00	-	1,119 91	519 11	\$17,000 00	1,687 07	-	33,509 19
Hancock,	750 00	-	32 50	-	64 24	8 00	-	7 00	66 18	919 92
Hinsdale,	3,550 00	-	-	-	392 00	7 00	-	-	50 00	4,000 00
Lanesborough,	1,800 00	190 50	58 00	-	287 87	59 75	-	-	183 35	2,388 97
Lee,	8,894 70	483 87	275 00	-	1,100 18	307 14	-	83 55	175 15	10,835 72
Lenox,	10,800 00	-	300 00	-	800 00	-	-	5,209 30	900 00	18,009 30
Monterey,	700 00	278 00	37 00	-	82 46	5 00	-	-	70 67	895 13
Mount Washington,	100 00	-	22 00	-	14 00	2 00	-	40 00	-	178 00
New Ashford,	141 00	74 00	50 25	-	16 50	-	-	-	19 40	227 15
New Marlborough,	1,660 71	169 00	93 50	150 00	237 74	48 78	-	-	94 05	2,284 78
North Adams,	52,165 00	380 00	918 00	2,625 00	4,000 00	225 00	96,426 07	1,000 00	3,700 00	161,080 07
Otis,	800 00	61 00	56 75	-	88 78	217 01	-	-	8 50	1,171 04
Penn.,	500 00	180 00	23 25	-	62 25	9 00	-	-	7 26	601 76
Pittsfield,	60,417 80	240 00	850 00	2,300 00	6,936 80	1,964 57	43,397 21	1,734 55	1,843 43	119,444 36
Richmond,	1,500 00	-	55 40	131 35	212 52	42 31	-	-	20 25	1,961 83
Sandisfield,	1,100 00	26 30	88 84	-	44 70	19 86	-	-	17 74	1,270 64
Savoy,	700 00	100 00	38 00	-	87 18	-	-	18 25	3 00	846 43
Sheffield,	3,400 00	-	115 25	225 00	322 77	250 00	-	606 15	101 26	5,020 43
Stockbridge,	8,125 79	254 00	225 00	500 00	671 00	222 57	-	-	275 17	10,019 53
Tyringham,	800 00	45 00	25 00	-	64 75	-	-	35 00	5 19	929 94
Washington,	1,000 00	65 00	31 50	93 64	178 10	6 00	-	-	27 78	1,337 02
West Stockbridge,	3,400 00	321 50	70 00	187 50	197 65	25 11	-	290 00	93 22	4,263 48
Williamstown,	12,039 38	233 70	-	1,200 00	1,724 48	244 93	22,000 00	322 74	1,078 56	38,610 09
Windsor,	800 00	303 25	40 00	-	186 55	5 00	-	66 00	9 50	1,107 05
Totals,	\$235,134 28	\$3,947 46	\$4,331 54	\$10,344 81	\$23,762 10	\$4,748 61	\$178,823 28	\$13,220 92	\$11,203 77	\$481,569 31

BARNSTABLE COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for public schools.	Amount of local funds, the income of which can be appropriated only for the support of schools and academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1898.	How much of said fund was used for apparatus and books of reference.
					No. of academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of private schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Barnstable,	.	\$10,233 00	\$394 32	\$394 20	1	1	1	1	1	1	\$281 29	\$50 00
Bourne,	.	-	-	547 50	1	1	1	1	1	1	381 29	65 00
Brewster,	.	-	-	31 16	1	1	1	1	1	1	381 29	1 75
Chatham,	.	-	-	102 37	1	1	1	1	1	1	341 71	-
Dennis,	.	-	-	129 01	1	1	1	1	1	1	481 28	-
Eastham,	.	-	-	-	1	1	1	1	1	1	107 19	-
Falmouth,	.	10,000 00	641 08	-	1	1	1	1	1	1	-	-
Harwich,	.	-	-	222 14	1	1	1	1	1	1	281 28	15 00
Mashpee,	.	-	-	53 51	1	1	1	1	1	1	541 71	-
Orleans,	.	-	-	-	1	1	1	1	1	1	441 71	-
Provincetown,	.	-	-	-	1	1	1	1	1	1	281 28	100 00
Sandwich,	.	-	-	181 70	1	1	1	1	1	1	381 28	-
Truro,	.	-	-	63 07	1	1	1	1	1	1	481 28	-
Wellfleet,	.	-	-	-	1	1	1	1	1	1	441 71	75 00
Yarmouth,	.	15,000 00	900 00	-	1	1	1	1	1	1	281 28	25 00
Totals,	.	\$35,233 00	\$1,935 40	\$1,724 66	1	1	1	1	1	1	\$4,998 39	\$438 94

BERKSHIRE COUNTY — CONCLUDED.

Adams,	.	-	-	-	1	50	\$150 00	-	-
Alford,	.	-	-	-	1	-	-	\$300 00	-
Becket,	.	-	-	-	1	-	-	445 02	-
Cheshire,	.	-	-	-	1	-	-	381 28	-

SCHOOL RETURNS.

[illegible]

BOARD OF EDUCATION.

BRISTOL COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1897.	No. of public schools.	No. of persons in town May 1, 1897, between 5 and 15 years of age.	No. of persons in town May 1, 1897, between 8 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the public schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the public schools.
Acushnet,	1,115	\$634,060	6	184	114	198	2	9	116	148	127	.86	6
Attleborough,	8,288	5,664,900	36	1,897	1,110	1,983	—	150	1,135	1,569	1,439	.92	48
Berkley,	955	388,219	7	136	110	186	1	10	118	135	120	.89	7
Dartmouth,	3,107	2,412,800	22	543	341	605	9	38	343	468	423	.90	25
Dighton,	1,797	787,408	10	240	136	291	5	18	144	233	209	.90	10
Easton,	4,452	4,527,604	23	841	547	1,052	64	76	594	815	756	.93	42
Fairhaven,	3,338	2,223,737	16	568	352	684	4	43	371	553	493	.89	17
Fall River,	89,203	71,292,363	245	20,006	11,883	16,333	228	804	9,892	12,467	11,361	.91	349
Free-town,	1,405	837,955	7	156	133	238	5	22	143	214	177	.83	7
Mansfield,	3,722	1,887,575	17	660	383	779	—	71	416	675	631	.93	18
New Bedford,	53,251	58,171,798	183	11,439	6,506	8,671	—	589	4,644	7,081	6,600	.93	200
North Attleborough,	6,576	3,840,198	30	1,202	807	1,431	8	148	750	1,217	1,127	.92	38
Norton,	1,614	789,400	10	227	157	269	5	7	157	200	180	.90	10
Raynham,	1,518	754,816	8	231	141	260	1	6	153	180	161	.89	8
Rehoboth,	1,810	706,340	14	305	201	338	9	25	199	274	243	.89	14
Seekonk,	1,465	923,215	8	274	161	293	1	18	161	201	170	.85	8
Somerset,	1,983	1,039,440	10	376	211	421	10	22	218	328	295	.90	10
Swansea,	1,627	876,115	11	243	177	292	10	5	177	223	200	.90	11
Taunton,	27,115	20,283,780	92	5,005	2,972	4,420	—	357	2,613	3,914	3,714	.95	120
Westport,	2,678	1,536,950	19	470	300	488	9	26	289	374	329	.88	20
Totals,	219,019	\$179,578,673	774	44,803	26,742	39,235	371	2,444	22,633	31,269	28,755	.92	968

SCHOOL RETURNS.

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DUKES COUNTY.

Chilmark.	304	\$217,664	3	30	16	34	-	4	16	23	22	.96	3
Cottage City,	1,038	1,660,050	5	160	103	216	-	36	109	140	125	.89	6
Edgartown,	.	.	.	.	.	1,125	706,016	6	139	93	146	-	17	91	130	118	.90	6
Gay Head,	.	.	.	.	.	169	25,621	1	33	19	40	-	7	19	40	32	.80	2
Gosnold,	.	.	.	.	.	140	224,148	1	18	11	19	-	-	11	16	14	.88	1
Tisbury,	.	.	.	.	.	1,002	927,569	4	114	86	140	-	26	86	128	115	.90	5
West Tisbury,	.	.	.	.	.	460	386,267	3	53	34	72	-	4	34	53	46	.86	3
Totals,	.	.	.	.	.	4,238	\$4,146,335	23	547	362	667	-	94	366	530	472	.89	26

BOARD OF EDUCATION.

BRISTOL COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended normal schools.	No. of teachers who have graduated from normal schools.	A'ge wages per month of male teachers in public schools.	A'ge wages per month of female teachers in public schools.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept for the entire year.	No. of schools kept less than the time required by law.	HIGH SCHOOLS.						Salary of principal.
										No. of high schools.	No. of teachers.	No. of pupils.	How supported.	Months.	Length.	
Acushnet,	2	9	2	1	\$39 00	\$36 81	54	9	-	1	1	150	Taxation.	10	-	\$1,500 00
Attleborough,	4	50	18	10	90 00	45 50	350	10	-	1	5	-	-	-	-	526 25
Berkley,	-	9	4	4	-	32 28	59-10	8-10	-	-	-	-	-	{ 9	9	482 50
Dartmouth,	5	26	6	3	54 89	29 80	189	9	-	3	3	32	Taxation.	{ 9	9	482 50
Dighton,	-	17	4	3	-	36 40	85	8-10	-	1	1	-	-	-	-	1,500 00
Easton,	-	44	8	7	108 00	42 00	224-5	9-15	-	1	3	90	Taxation.	9-15	10	800 00
Fairhaven,	1	19	4	2	110 00	42 00	142-10	9-13	-	1	3	61	Taxation.	10	-	3,000 00
Fall River,	21	338	43	41	137 08	49 96	2,338	9-9	-	1	21	689	Taxation.	10	-	-
Freetown,	2	8	-	-	36 00	33 25	60-6	8-12	-	1	2	74	-	-	-	-
Mausfield,	3	20	5	5	94 44	39 50	154	9-1	-	1	2	460	Taxation.	10	-	1,000 00
New Bedford,	11	189	47	42	179 37	110 61	1,669-7	9-3	-	1	15	94	Taxation.	9-12	9-11	2,750 00
North Attleborough,	1	44	32	20	157 06	45 90	280-15	9-7	-	1	4	-	Taxation.	-	-	1,500 00
Norton,	-	17	8	5	-	37 32	86-15	8-13	-	1	-	-	-	-	-	-
Raynham,	1	14	8	8	44 00	38 28	69-4	8-13	-	-	-	-	-	-	-	-
Rehoboth,	-	19	5	-	-	29 37	106-10	7-12	-	-	-	-	-	-	-	-
Seekonk,	1	10	3	-	40 00	34 60	72	9	-	-	-	-	-	-	-	-
Somerset,	-	14	6	5	-	39 00	87	8-14	-	-	-	-	-	-	-	-
Swansea,	2	15	6	4	31 00	32 24	97-10	8-17	-	1	10	316	-	-	-	2,000 00
Taunton,	12	108	24	22	128 29	54 20	846	9-10	-	1	1	27	Taxation.	10	9	477 50
Westport,	5	24	1	-	46 00	28 70	171	9	-	1	1	-	-	-	-	-
Totals,	75	994	234	182	\$113 78	\$57 79	7,142-12	9-4	-	12	67	1,993	-	9-11	-	\$16,018 75

SCHOOL RETURNS.

DUKES COUNTY — CONTINUED.

[illegible]

BOARD OF EDUCATION.

BRISTOL COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools — wages of teachers, transpor- tation, fuel, care of fires and schoolrooms—for 1897-98.	Expense for trans- portation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of superintend- ent or town's share of it.	Expense of books, sta- tionery and school supplies.	Gratuities (reports, cen- sus, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and per- manent improve- ments.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by tax- ation.
Acushnet,	\$1,880 02	\$880 00	\$75 00	\$150 00	\$196 34	-	-	-	\$138 55	\$2,389 91
Attleborough,	25,968 00	-	-	1,200 00	2,519 05	-	-	\$693 60	2,801 93	32,682 58
Berkley,	1,600 00	-	97 27	-	250 49	\$54 05	-	43 05	74 40	2,119 26
Dartmouth,	6,400 00	416 00	150 00	375 00	416 28	1,301 08	\$412 00	-	627 58	9,681 94
Dighton,	4,100 00	-	-	200 00	137 43	35 50	800 00	65 30	363 40	5,701 63
Easton,	16,557 30	1,007 30	150 00	1,300 00	1,779 44	786 95	-	689 69	1,190 07	22,423 45
Fairhaven,	9,091 29	226 00	150 00	450 00	153 27	643 05	-	1,190 15	623 05	12,300 81
Fall River,	230,302 28	957 75	2,362 09	3,300 00	22,685 58	3,843 19	84,709 45	9,919 73	2,193 34	359,315 66
Freetown,	2,000 00	170 00	94 75	-	238 31	3 20	-	-	151 99	2,488 25
Mansfield,	9,683 97	348 51	360 00	360 00	1,098 56	236 69	-	-	841 86	12,581 08
New Bedford,	138,206 89	36 30	1,565 52	3,230 40	8,573 22	11,556 55	52,731 64	12,071 75	6,977 35	234,913 32
North Attleborough, North,	22,285 21	-	150 00	1,500 00	1,647 70	1,182 70	-	-	762 30	27,527 91
Norton,	3,000 00	-	-	300 00	171 23	27 85	-	-	167 69	3,666 77
Raynham,	3,515 05	360 00	145 00	150 00	248 50	225 75	-	137 91	278 80	4,563 10
Rehoboth,	3,200 00	123 00	120 00	-	242 30	22 00	-	-	300 00	4,082 21
Seekonk,	2,000 00	102 60	95 00	-	237 00	11 00	-	-	19 51	2,362 50
Somerset,	4,695 88	315 36	209 13	-	291 88	109 86	-	-	118 35	5,425 10
Swansea,	4,120 76	-	61 80	100 00	339 51	105 78	-	-	300 42	5,029 27
Taunton,	84,482 09	1,281 00	300 00	2,150 00	3,700 00	4,413 36	16,000 00	300 00	5,200 00	116,545 45
Wesport,	6,443 50	500 00	235 00	375 00	500 00	51 50	-	-	499 50	8,104 50
Totals,	\$579,482 24	\$6,723 82	\$6,320 56	\$15,140 40	\$45,426 09	\$24,611 06	\$154,653 09	\$25,141 18	\$23,130 09	\$873,904 71

SCHOOL RETURNS.

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DUKES COUNTY — CONTINUED.

Chilmark, .	\$350 00	-	\$42 00	\$80 00	\$69 51	\$18 31	-	\$27 80	\$7 25	\$594 87
Cottage City, .	3,450 00	\$144 00	75 00	200 00	349 60	229 34	-	17 60	99 89	4,421 43
Edgartown, .	1,700 00	-	75 00	200 00	258 65	435 11	-	-	29 74	2,698 50
Gay Head, .	99 00	-	30 00	-	30 93	43 55	-	-	-	203 48
Gosnold, .	100 00	-	41 00	-	15 63	10 00	-	-	-	166 63
Tisbury, .	2,500 00	144 42	60 00	160 00	564 36	24 00	-	119 78	24 77	3,452 91
West Tisbury, .	725 00	-	20 00	160 00	93 55	8 00	-	-	-	1,006 55
Totals, .	\$8,924 00	\$288 42	\$343 00	\$800 00	\$1,382 23	\$768 31	-	\$165 18	\$161 65	\$12,544 37

BOARD OF EDUCATION.

BRISTOL COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for public schools.	Amount of local funds, the income of which can be appropriated only for the support of schools and academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1898.	How much of said fund was used for apparatus and books of reference.
					No. of academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of private schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Aushnet,	-	\$25,000 00	\$1,000 00	\$207 14	1	-	-	2	40	-	\$381 29	-
Attleborough,	-	-	-	833 32	-	-	-	-	-	-	541 71	-
Berkley,	-	2,000 00	252 28	468 23	-	-	-	-	-	-	50 00	-
Dartmouth,	-	-	-	220 49	-	-	-	-	-	-	381 28	\$10 00
Dighton,	-	-	-	729 30	-	-	-	-	-	-	-	-
Easton,	\$65 00	100,000 00	5,015 00	425 56	1	13	-	1	438	\$400 00	170 86	-
Fairhaven,	200 00	9,000 00	271 82	280 71	-	-	-	20	4	-	381 28	-
Fall River,	-	50,000 00	2,515 36	448 91	-	-	-	-	4	50 00	281 28	54 66
Freetown,	-	-	-	1,340 42	1	73	\$7,300 00	14	4,001	23,550 00	-	-
Mansfield,	-	1,000 00	36 00	-	-	-	-	-	17	375 00	-	-
New Bedford,	-	50,000 00	3,000 00	-	-	-	-	-	-	-	-	-
North Attleborough,	-	-	-	407 70	1	60	3,500 00	1	-	-	381 28	-
Norton,	-	-	-	402 68	-	-	-	-	-	-	381 28	-
Raynham,	-	-	-	265 00	-	-	-	-	-	-	381 28	-
Rehoboth,	-	-	-	355 38	-	-	-	-	-	-	345 03	10 00
Seekonk,	-	8,475 00	379 04	191 38	-	-	-	-	-	-	281 28	-
Somerset,	-	-	-	-	-	-	-	-	-	-	381 28	-
Swansea,	-	-	-	767 92	1	70	2,247 45	2	543	800 00	-	-
Taunton,	-	15,000 00	750 00	460 10	-	-	-	-	-	-	220 85	-
Westport,	60 00	-	-	-	-	-	-	-	-	-	-	-
Totals,	\$325 00	\$260,475 00	\$13,219 50	\$7,804 24	3	203	\$13,047 45	41	9,056	\$25,175 00	\$4,559 98	\$74 66

SCHOOL RETURNS.

xvii

DUKES COUNTY—CONCLUDED.

[illegible]

BOARD OF EDUCATION.

ESSEX COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1897.	No. of public schools.	No. of persons in town May 1, 1897, between 5 and 15 years of age.	No. of persons in town May 1, 1897, between 8 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the public schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the public schools.
Amesbury,	9,986	\$5,119,261	31	1,660	1,068	1,246	1	127	796	1,170	1,136	.97	38
Andover,	6,145	4,727,611	29	941	695	1,156	99	33	752	966	886	.92	31
Beverly,	11,806	14,277,800	51	2,031	1,144	2,115	206	206	1,271	1,885	1,723	.91	56
Boxford,	727	877,342	4	92	51	104	3	3	68	88	78	.89	4
Danvers,	8,181	4,962,165	31	1,356	788	1,068	173	173	777	1,413	1,321	.93	36
Essex,	1,587	1,003,547	9	268	125	330	9	31	112	297	275	.92	10
Georgetown,	2,050	1,021,010	11	330	171	363	1	19	171	337	312	.93	14
Grochester,	28,211	15,563,818	90	4,108	2,366	4,719	3	599	2,263	4,122	4,008	.97	116
Gloucester,	2,333	969,427	13	400	222	459	1	40	234	394	372	.94	14
Hamilton,	1,356	1,783,970	7	240	138	245	3	2	146	216	201	.93	7
Haverhill,	34,945	24,942,096	123	5,819	2,724	5,330	15	747	2,742	4,611	4,289	.93	170
Ipswich,	4,720	3,052,525	21	818	598	835	5	143	479	678	616	.91	27
Lawrence,	52,164	36,208,166	167	9,316	5,760	8,037	61	850	4,484	6,344	6,048	.95	203
Lynn,	62,354	50,850,653	222	10,297	5,818	10,471	—	1,167	5,232	9,003	8,300	.94	243
Lynnfield,	818	654,283	4	159	107	187	2	2	83	113	107	.94	4
Manchester,	1,876	7,263,393	9	293	182	333	—	47	205	309	302	.98	11
Marblehead,	7,571	5,555,425	29	976	705	1,357	74	117	618	1,181	1,071	.91	34
Merrimac,	2,301	1,320,498	12	359	213	461	3	63	241	384	368	.96	14
Methuen,	5,690	3,952,837	25	1,188	709	1,021	6	78	790	1,111	986	.89	34
Middleton,	838	541,582	3	152	134	136	—	1	92	117	102	.87	3
Nahant,	4,872,021	4,872,021	5	109	70	139	—	29	70	118	109	.92	5
Newbury,	1,865	1,011,609	9	247	170	245	7	13	162	223	181	.81	10
Newburyport,	14,552	9,664,074	42	2,305	1,320	1,932	—	205	1,328	1,633	1,533	.94	44
North Andover,	3,569	2,926,710	20	754	438	869	1	81	477	721	678	.93	25
Feabody,	10,567	7,644,550	40	1,996	1,183	1,934	81	117	986	1,600	1,468	.92	49

SCHOOL RETURNS.

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Rockport,	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
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BOARD OF EDUCATION.

ESSEX COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended normal schools.	No. of teachers who have graduated from normal schools.	A'v'g wages per month of male teachers in public schools.	A'v'g wages per month of female teachers in public schools.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept for the entire year.	No. of schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of principal.
										No. of high schools.	No. of teachers.	No. of pupils.	How supported.	Length.	
														Months.	
														Days.	
Amesbury,	•	•	•	•	•	•	•	•	•	1	6	201	Taxation.	9-15	\$1,400 00
Andover,	•	•	•	•	•	•	•	•	•	1*	5	97	Part tax.	9-5	1,800 00
Beverly,	•	•	•	•	•	•	•	•	•	1	6	177	Taxation.	10	1,500 00
Boxford,	•	•	•	•	•	•	•	•	•	1	1	—	—	—	—
Danvers,	•	•	•	•	•	•	•	•	•	1	6	180	Taxation.	10	1,600 00
Essex,	•	•	•	•	•	•	•	•	•	1	2	55	Taxation.	8-10	850 00
Georgetown,	•	•	•	•	•	•	•	•	•	1	2	56	Taxation.	9-15	1,000 00
Gloicester,	•	•	•	•	•	•	•	•	•	1	13	381	Taxation.	9-14	2,300 00
Groveland,	•	•	•	•	•	•	•	•	•	1	2	73	Taxation.	9-12	850 00
Hamilton,	•	•	•	•	•	•	•	•	•	1	1	—	—	—	—
Haverhill,	•	•	•	•	•	•	•	•	•	2	15	447	Taxation.	{ 9-3 9-3	2,000 00
Ipswich,	•	•	•	•	•	•	•	•	•	1	3	74	Part tax.	10	1,800 00
Lawrence,	•	•	•	•	•	•	•	•	•	1	17	601	Taxation.	10	2,500 00
Lynn,	•	•	•	•	•	•	•	•	•	2	31	854	Taxation.	{ 9-3 9-3	2,500 00
Lynnfield,	•	•	•	•	•	•	•	•	•	—	—	—	—	—	—
Manchester,	•	•	•	•	•	•	•	•	•	1	3	40	Taxation.	9-15	1,200 00
Marblehead,	•	•	•	•	•	•	•	•	•	1	6	134	Taxation.	10	1,200 00
Merrimac,	•	•	•	•	•	•	•	•	•	1	3	81	Taxation.	10	1,200 00
Methuen,	•	•	•	•	•	•	•	•	•	1	4	100	Taxation.	9-10	1,200 00
Middleton,	•	•	•	•	•	•	•	•	•	—	—	—	—	—	—
Nahant,	•	•	•	•	•	•	•	•	•	1	2	34	Taxation.	9-5	1,200 00
Newbury,	•	•	•	•	•	•	•	•	•	1†	1	12	Taxation.	9-10	275 00
Newburyport,	•	•	•	•	•	•	•	•	•	1	7	204	Part tax.	9-12	2,000 00

SCHOOL RETURNS.

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	3	27	7	6	117 28	41 45	190-10	9-10	1	4	78	Taxation.	10	
North Andover,	.	48	25	24	143 33	43 65	395-16	9-17	-	5	144	Taxation.	9-19	1,250 00
Peabody,	.	17	7	6	105 26	39 75	149-10	9-7	-	2	93	Taxation.	9-8	1,700 00
Rockport,	.	.	3	1	-	31 66	54	9	-	-	-	-	-	1,000 00
Rowley,	.	9	95	84	139 23	54 29	845	8-8	-	16	401	Taxation.	9-10	2,500 00
Salem,	.	120	3	2	60 00	30 33	59-10	8-10	-	-	-	-	-	-
Salisbury,	.	8	3	2	60 00	30 33	59-10	8-10	-	3	101	Taxation.	10	1,300 00
Saugus,	.	27	22	21	130 00	43 00	202	8-18	-	3	61	Taxation.	10	1,800 00
Swampscott,	.	17	6	5	180 00	48 69	140	10	-	2	41	Taxation.	9-16	800 00
Swampscott,	.	4	2	1	65 00	39 00	36-15	9-5	-	-	-	-	-	-
Topsfield,	.	7	6	5	-	36 00	45	9	-	-	-	-	-	-
Wenham,	.	10	1	-	69 44	30 00	81	8-1	-	1	32	Taxation.	9	800 00
West Newbury,
Totals,	115	1,417	483	404	\$132 92	\$49 59	11,133-17	9-5	-	169	4,752	-	9-12	\$43,425 00

* Punchard Free School.

† United with Dummer Academy.

ESSEX COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools — wages of teachers, fuel, care of fires and schoolrooms—for 1897-98.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, censuses, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Amesbury,	\$18,696 60	—	\$500 00	—	\$2,428 35	\$1,358 75	\$1,218 60	—	\$317 32	\$24,519 62
Andover,	18,353 28	—	—	\$1,600 00	1,500 00	40 00	—	—	2,500 00	23,993 28
Beverly,	31,702 98	\$880 80	—	1,800 00	4,887 09	3,487 90	—	\$6,169 37	1,717 90	49,763 24
Boxford,	1,600 00	367 00	115 00	—	191 42	22 79	—	—	19 60	1,948 71
Danvers,	25,300 00	600 00	480 00	500 00	1,804 00	—	9,900 00	—	3,029 00	41,013 00
Essex,	3,500 00	100 50	187 60	—	475 16	242 70	—	—	313 26	4,718 72
Georgetown,	5,025 00	—	100 00	300 00	593 46	69 00	—	187 90	245 25	6,520 61
Gloicester,	61,389 77	500 00	500 00	2,300 00	3,826 55	1,672 63	6,000 00	—	7,371 50	83,060 45
Groveland,	5,438 12	—	160 00	300 00	661 52	223 16	—	1,646 67	158 01	8,587 48
Hamilton,	3,178 66	—	130 00	—	710 24	97 94	11,723 43	—	102 47	15,942 74
Haverhill,	108,014 52	1,075 50	376 00	2,000 00	4,850 37	4,056 01	—	2,043 00	—	121,349 90
Ipswich,	11,734 57	—	380 36	—	979 71	246 03	1,000 00	—	715 11	15,055 78
Lawrence,	140,126 93	—	1,900 00	3,000 00	14,866 93	218 76	34,754 80	1,774 34	8,925 66	208,667 52
Lynn,	192,783 10	—	95 00	2,700 00	7,938 32	10,137 32	27,730 34	4,500 00	11,951 36	259,640 44
Lynnfield,	1,825 00	—	—	—	253 15	15 00	—	349 95	87 90	2,626 00
Manchester,	7,728 01	432 00	125 00	400 00	1,277 98	785 23	14,652 76	375 00	—	24,508 75
Marblehead,	18,856 57	—	100 00	800 00	1,204 00	40 00	—	—	754 20	22,500 00
Merrimac,	7,260 63	—	100 00	69 95	672 63	355 64	—	—	235 69	8,749 54
Methuen,	16,287 59	—	155 00	—	1,590 62	283 19	—	—	1,852 49	21,034 93
Middleton,	1,700 00	650 00	100 00	—	1,021 04	26 50	—	118 34	328 18	2,399 21
Nahant,	4,430 83	—	275 00	—	256 44	152 58	—	—	278 59	5,383 44
Newbury,	3,255 85	30 00	75 00	—	346 69	83 28	—	—	71 55	3,832 37
Newburyport,	25,997 64	—	—	1,200 00	1,389 59	922 46	—	10,400 00	450 00	40,359 69
North Andover,	13,300 00	—	120 00	550 00	1,252 40	83 15	—	961 38	970 76	17,237 69
Peabody,	29,711 08	363 58	32 50	1,200 00	1,918 25	488 25	—	—	2,650 83	36,000 91

SCHOOL RETURNS.

xxiii

Rockport, .	10,628 43	-	150 00	600 00	915 96	142 77	-	950 40	30 30	13,417 86
Rowley, .	2,255 81	280 00	75 00	150 00	264 18	25 00	-	237 22	137 22	3,144 43
Salem, .	97,484 98	-	1,200 00	2,500 00	6,401 60	1,412 44	-	8,020 00	4,188 55	121,207 57
Salisbury, .	2,379 14	-	100 00	-	500 08	111 47	-	-	109 18	3,199 87
Saugus, .	14,354 94	300 00	60 00	1,000 00	1,689 25	192 43	-	210 91	159 21	17,666 74
Swampscott, .	12,449 61	-	400 00	-	2,201 01	60 00	2,000 00	-	436 10	17,546 72
Topsfield, .	2,252 32	360 00	100 00	-	256 44	90 00	-	-	23 22	2,721 98
Wenham, .	1,400 00	-	127 50	-	154 87	25 00	-	-	164 68	1,872 05
West Newbury, .	3,644 94	208 40	209 70	-	219 31	3 50	-	-	193 93	4,271 38
Totals, .	\$904,046 90	\$6,147 78	\$8,328 66	\$23,990 99	\$68,603 76	\$27,180 88	\$108,980 03	\$37,944 48	\$50,488 92	\$1,229,504 62

ESSEX COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for public schools.	Amount of local funds, the income of which can be appropriated only for the support of schools and academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan 25, 1898.	How much of said fund was used for apparatus and books of reference.
					No. of academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of private schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Amesbury,	—	\$240,000 00	\$13,335 00	—	2	528	\$27,003 00	1	400	\$960 00	—	—
Andover,	—	3,000 00	120 00	— 30	—	—	—	1	16	900 00	—	—
Beverly,	—	44,467 59	1,819 90	\$410 30	—	—	—	1	30	—	\$345 02	—
Boxford,	—	—	—	544 89	—	—	—	2	23	1,550 00	—	—
Danvers,	—	—	—	—	—	—	—	1	14	—	—	—
Essex,	—	—	—	179 80	—	—	—	—	—	—	345 02	—
Georgetown,	—	—	—	—	—	—	—	3	300	1,500 00	—	—
Gloucester,	—	—	—	176 10	—	—	—	1	—	—	381 28	—
Groveland,	—	—	—	—	—	—	—	—	—	—	245 02	—
Hamilton,	—	—	—	—	—	—	—	8	1,555	—	231 29*	—
Haverhill,	—	62,040 00	2,575 00	394 04	1	103	6,000 00	7	2,200	5,000 00	195 02	—
Ipswich,	—	—	—	—	—	—	—	5	1,450	4,000 00	—	—
Lawrence,	—	—	—	—	—	—	—	—	—	—	345 02	—
Lynn,	—	—	—	—	—	—	—	—	—	—	—	—
Lynnfield,	—	—	—	—	—	—	—	—	—	—	—	—
Manchester,	—	—	—	—	—	—	—	—	—	—	—	—
Marblehead,	—	—	—	—	—	—	—	—	—	—	—	—
Merrimac,	\$28 00	—	—	149 04	—	—	—	1	30	2,000 00	341 71	—
Methuen,	—	—	—	—	—	—	—	1	40	190 00	—	—
Middleton,	—	—	—	140 52	—	—	—	—	—	—	345 03	—
Nahant,	—	—	—	—	—	—	—	—	—	—	—	—
Newbury,	—	65,000 00	—	151 69	1	30	3,750 00	—	—	—	381 28	—
Newburyport,	—	4,000 00	3,675 00	—	1	88	—	5	619	3,000 00	—	—
North Andover,	—	10,000 00	161 60	—	—	—	—	1	—	—	231 28	—
Peabody,	161 23	500 00	500 00	660 34	—	—	—	1	400	200 00	—	—

SCHOOL RETURNS.

XXV

Rockport,	-	-	-	-	-	-	-	-	-	-	-	50 00	28 00
Rowley,	-	-	-	-	-	-	-	-	-	-	-	345 03	-
Salem,	-	25,425 00	1,017 00	2,244 50	-	-	-	-	-	-	-	-	-
Salisbury,	-	-	-	128 89	-	-	-	-	-	-	-	381 28	-
Saugus,	-	-	-	-	-	-	-	-	-	-	-	-	-
Swampscott,	-	-	-	-	-	-	-	-	-	-	-	-	-
Topsfield,	-	-	-	139 50	-	-	-	-	-	-	-	345 03	-
Wenham,	-	-	-	184 57	-	-	-	-	-	-	-	345 03	-
West Newbury,	-	-	-	-	-	-	-	-	-	-	-	381 28	-
Totals,	\$189 23	\$453,932 59	\$23,203 50	\$5,504 18	5	749	\$36,753 00	51	9,213	\$31,725 00	\$5,676 33	\$132 31	

* Bradford.

BOARD OF EDUCATION.

FRANKLIN COUNTY.

TOWNS.	Population—State Cen- sus, 1895.	Valuation—1897.	No. of public schools.	No. of persons in town May 1, 1897, between 5 and 15 years of age.	No. of persons in town May 1, 1897, between 8 and 14 years of age.	No. of different pupils of all ages in the pub- lic schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the public schools during the school year.	The per cent. of attend- ance based upon the average membership.	No. of teachers re- quired by the public schools.
Ashfield,	1,013	\$507,188	10	114	89	185	4	39	89	156	147	.95	11
Berthardston,	778	395,574	6	124	83	124	1	2	80	107	98	.91	6
Buckland,	1,548	563,524	9	276	179	269	1	8	177	212	198	.93	10
Charlemont,	1,041	353,299	10	161	102	196	1	15	110	170	158	.93	10
Colrain,	1,610	576,389	14	290	191	313	1	20	194	259	231	.90	14
Conway,	1,304	674,345	9	194	139	268	1	49	134	219	197	.90	11
Deerfield,	3,007	1,283,340	12	290	171	296	1	1	168	238	206	.87	12
Erving,	964	423,723	6	197	123	228	1	7	132	188	181	.96	7
Gill,	1,082	480,806	5	130	79	138	1	2	79	100	91	.91	5
Greenfield,	6,229	5,720,048	36	1,197	733	1,498	2	212	788	1,258	1,171	.93	44
Hawley,	468	143,192	7	88	60	88	1	—	60	70	63	.89	7
Heath,	476	151,888	7	105	67	117	1	18	67	92	86	.93	6
Leverett,	744	275,990	5	131	79	130	1	6	81	104	95	.91	5
Leyden,	363	238,912	5	62	40	67	1	4	40	53	48	.92	5
Monroe,	298	138,818	3	45	31	61	1	1	31	43	40	.93	3
Montague,	6,058	3,731,785	29	1,339	816	1,074	2	68	618	1,029	992	.96	35
New Salem,	869	276,470	10	158	100	170	7	5	99	128	116	.91	12
Northfield,	1,851	918,215	10	226	134	260	2	23	137	200	187	.93	10
Orange,	5,361	2,845,510	27	953	563	1,197	7	163	595	1,045	1,001	.96	32
Rowe,	498	170,782	5	76	48	87	5	6	48	63	55	.87	5
Shelburne,	1,560	885,868	10	228	134	293	2	52	158	232	217	.93	14
Shutesbury,	444	162,669	5	51	40	62	—	4	44	50	51	.86	5
Sunderland,	696	425,161	3	96	73	115	1	12	75	88	82	.93	4
Warwick,	599	333,925	4	102	61	118	1	11	74	85	77	.90	4

SCHOOL RETURNS.

xxvii

Wendell,	.	.	.	.	529	234,485	5	120	75	111	1	9	64	79	74	.94	5
Whately,	.	.	.	.	755	412,153	5	97	52	102	1	6	46	80	73	.90	5
Totals,	.	.	.	.	40,145	\$22,379,060	256	6,853	4,262	7,567	37	743	4,158	6,357	5,938	.93	287

HAMPDEN COUNTY.

Agawam,	.	.	.	.	2,408	\$1,322,222	13	533	424	536	3	34	424	375	338	.90	13
Blandford,	.	.	.	.	849	439,690	9	128	76	155	3	14	81	139	125	.90	9
Brinfield,	.	.	.	.	962	397,404	8	123	76	145	1	4	92	102	87	.85	8
Chester,	.	.	.	.	1,429	577,200	8	270	182	313	1	20	232	223	205	.91	8
Chicopee,	.	.	.	.	16,420	9,199,470	51	2,769	1,746	2,658	-	223	1,424	1,967	1,822	.97	57
East Longmeadow,	.	.	.	.	1,591	623,155	9	350	217	376	3	16	244	306	278	.91	9
Granville,	.	.	.	.	1,005	354,971	8	197	123	234	-	23	149	167	154	.92	8
Hampden,	.	.	.	.	743	391,895	5	106	73	121	4	3	75	88	79	.89	5
Holland,	.	.	.	.	199	86,817	1	24	13	21	-	1	13	14	13	.94	1
Holyoke,	.	.	.	.	40,322	32,986,825	142	8,938	5,755	6,290	37	500	3,262	4,829	4,444	.92	174
Longmeadow,	.	.	.	.	620	620,470	4	101	60	106	-	5	60	82	75	.91	4
Ludlow,	.	.	.	.	2,562	1,279,495	16	495	330	477	-	20	301	322	291	.90	16
Monson,	.	.	.	.	3,746	1,727,761	20	589	357	694	6	89	393	611	574	.94	26
Montgomery,	.	.	.	.	275	139,497	5	49	32	46	-	2	32	40	37	.92	5
Palmer,	.	.	.	.	6,858	2,719,638	28	1,150	749	1,128	2	95	715	953	890	.92	33
Russell,	.	.	.	.	846	479,576	7	156	105	165	3	6	105	142	127	.89	8
Southwick,	.	.	.	.	961	488,730	10	201	142	218	6	11	142	160	150	.94	10
Springfield,	.	.	.	.	51,522	64,898,379	192	8,814	5,252	9,488	368	912	4,632	7,869	7,318	.93	268
Tolland,	.	.	.	.	309	140,878	6	57	37	62	1	3	37	56	46	.82	6
Wales,	.	.	.	.	783	271,692	6	169	146	164	-	4	107	131	118	.90	6
Westfield,	.	.	.	.	10,663	8,050,839	39	1,912	1,106	2,187	11	309	1,084	1,723	1,642	.95	56
West Springfield,	.	.	.	.	6,125	4,967,329	35	1,253	768	1,656	49	178	868	1,355	1,259	.93	42
Wilbraham,	.	.	.	.	1,740	753,258	11	273	167	296	4	12	171	214	193	.90	11
Totals,	.	.	.	.	182,938	\$132,517,091	633	28,687	17,936	27,536	502	2,484	14,643	21,868	20,265	.92	783

FRANKLIN COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended normal schools.	No. of teachers who have graduated from normal schools.	A'v'g wages per month of male teachers in public schools.	A'v'g wages per month of female teachers in public schools.	Aggregate of months all the public schools have been kept for the school year.	Average No. of months the public schools have been kept for the entire year.	No. of schools required less than the time required by law.	HIGH SCHOOLS.						Salary of principal.
										No. of high schools.	No. of teachers.	No. of pupils.	How supported.	Months.	Length.	
Ashfield.	1	16	—	—	\$73 63	\$25 48	75-5	7-10	—	1*	2	40	Part tax.	9-10	9	\$700 00
Bernardston.	1	7	4	—	25 00	29 11	51-10	8-10	—	1+	3	86	Part tax.	—	—	1,000 00
Buckland.	—	15	6	6	—	35 70	80-2	8-18	—	—	—	—	—	—	—	—
Charlmont.	—	15	2	1	—	27 42	71	7-9	—	—	—	—	—	—	—	—
Colrain.	—	23	5	4	—	27 49	102-5	7-9	—	—	—	—	—	—	—	—
Conway.	3	17	—	—	61 99	26 45	67-10	7-15	—	1	2	49	Taxation.	9	9	700 00
Deerfield.	—	17	9	7	—	33 00	102	8-10	—	1	1	23	Taxation.	9	9	468 00
Irving.	—	9	4	4	—	35 50	54	9	—	—	—	—	—	—	—	—
Gill.	—	7	3	3	—	33 07	45	9	—	—	—	—	—	—	—	—
Greenfield.	3	54	13	13	116 50	44 45	349-14	9-16	—	1	6	177	Taxation.	9-16	—	1,600 00
Hawley.	—	10	1	—	—	24 00	39	6	—	—	—	—	—	—	—	—
Heath.	—	9	—	—	—	27 68	44-8	7-8	—	—	—	—	—	—	—	—
Leverett.	—	11	—	—	—	31 08	42	8-4	—	—	—	—	—	—	—	—
Leyden.	—	8	—	—	—	23 66	36-15	7-7	—	—	—	—	—	—	—	—
Monroe.	—	5	5	3	—	35 90	27	9	—	—	—	—	—	—	—	—
Montagne.	2	33	18	14	102 77	41 06	261	9	—	2	6	106	Taxation.	{ 9	{ 9	{ 1,400 00 750 00 650 00
New Salem.	1	12	1	—	54 00	28 66	66-5	6-6	—	1+	3	34	Taxation.	9	—	—
Northfield.	—	15	8	7	36 00	33 20	87-10	8-15	—	—	—	—	—	—	—	—
Orange.	2	39	18	17	125 66	41 76	216-5	8-13	—	1	4	130	Taxation.	9-15	—	1,221 98
Rowe.	—	7	—	—	—	28 00	32	6-8	—	—	—	—	—	—	—	—
Shelburne.	1	17	4	4	150 00	39 14	88-15	8-17	—	1	4	57	Taxation.	9	—	1,350 00
Shutesbury.	—	5	—	—	—	28 00	28	7-10	—	—	—	—	—	—	—	—
Sunderland.	—	4	2	1	—	38 50	27	9	—	—	—	—	—	—	—	—
Warwick.	1	5	1	1	37 33	34 66	35-5	8-13	—	—	—	—	—	—	—	—

SCHOOL RETURNS.

xxix

Wendell,	.	.	1	6	2	1	31 12	37	7-8	-	-	-	-
Whately,	.	.	1	8	2	2	34 00	41-5	8-5	-	-	-	-
Totals,	.	.	17	374	108	90	\$82 67	\$34 55	2,107-14	8-4	10	31	702
													9-1
													\$9,839 98

HAMPDEN COUNTY — CONTINUED.

Agawam,	.	.	3	19	7	7	\$50 00	\$35 51	117	9	-	-	-	-	-	-
Blandford,	.	.	3	10	2	1	40 00	28 72	65-1	7-12	-	-	-	-	-	-
Brimfield,	.	.	-	10	-	-	-	28 00	70	8-15	-	-	-	-	-	-
Chester,	.	.	-	13	3	3	-	32 38	71	8-17	-	-	-	-	-	-
Chicopee,	.	.	5	64	27	24	180 00	44 54	460-16	9-7	1	6	85	Taxation.	9-17	\$1,800 00
East Longmeadow,	.	.	-	11	2	1	-	38 88	80-8	8-18	-	-	-	-	-	-
Granville,	.	.	1	13	7	5	48 00	29 20	68	8-10	-	-	-	-	-	-
Hampden,	.	.	-	6	-	-	-	29 60	44-4	8-17	-	-	-	-	-	-
Holland,	.	.	-	1	-	-	-	40 00	8-15	8-15	-	-	-	-	-	-
Holyoke,	.	.	19	155	96	96	130 88	63 82	1,388-14	9-17	1	16	426	Taxation.	10	3,000 00
Longmeadow,	.	.	-	4	4	4	-	39 00	36	9	-	-	-	-	-	-
Ludlow,	.	.	-	23	5	3	-	37 39	120-10	8-6	-	-	-	-	-	-
Monson,	.	.	3	23	3	3	137 50	35 84	174	9-3	1	2	20	Taxation.	10	700 00
Montgomery,	.	.	-	6	3	1	-	30 00	33-15	6-15	-	1||	98	Taxation.	9-15	1,500 00
Palmer,	.	.	2	39	13	10	130 00	43 23	231-7	9-8	1	4	87	Taxation.	9-19	1,300 00
Russell,	.	.	2	11	2	-	-	27 70	59-10	8-10	-	-	-	-	-	-
Southwick,	.	.	-	11	2	1	60 00	26 66	77-3	8-11	-	-	-	-	-	-
Springfield,	.	.	14	254	174	156	176 54	59 45	1,920	10	1	23	525	Taxation.	10	3,500 00
Tolland,	.	.	-	8	-	-	-	25 75	45	7-10	-	-	-	-	-	-
Wales,	.	.	1	8	2	2	24 00	33 00	48-10	8-2	-	-	-	-	-	-
Westfield,	.	.	6	58	47	41	167 00	47 91	356	10	1	8	255	Part tax.	10	2,600 00
West Springfield,	.	.	1	43	22	15	180 00	43 66	299-10	8-11	-	1	5	Taxation.	9-15	1,800 00
Wilbraham,	.	.	-	14	4	4	-	32 80	99	9	-	-	-	-	-	-
Totals,	.	.	60	804	425	377	\$136 17	\$50 27	5,874-3	9-5	-	8	71	1,649	-	\$16,200 00

* United with Sanderson Academy. † Power's Institute. ‡ New Salem Academy.
 § Arms Academy. || Monson Academy.

BOARD OF EDUCATION.

FRANKLIN COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools — wages of teachers, transportation, fuel, care of fires 1897-98.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, census, etc.)	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Ashfield, .	\$2,250 00	\$43 00	\$83 45	—	\$193 48	\$6 00	—	—	\$127 83	\$2,660 76
Barnardston, .	2,105 76	—	38 00	\$144 24	103 68	—	—	—	23 17	2,414 85
Buckland, .	3,640 31	82 66	55 00	225 00	297 66	64 07	—	—	94 87	4,376 91
Charlemonit, .	2,000 00	50 00	62 00	311 16	184 25	52 95	—	—	138 27	2,738 63
Colrain, .	3,527 16	314 15	75 50	300 00	348 68	21 43	—	\$190 00	210 75	4,673 52
Conway, .	3,200 00	286 17	75 00	181 76	351 84	—	—	101 00	173 14	4,082 74
Deerfield, .	4,856 00	648 00	286 50	360 00	536 25	258 90	—	—	135 64	6,433 29
Erving, .	2,100 00	448 20	48 37	112 37	297 57	12 00	—	—	76 95	2,647 26
Gill, .	1,450 00	40 00	65 00	144 24	134 37	12 10	—	6 29	15 51	1,827 51
Greenfield, .	23,646 14	585 02	—	1,750 00	2,847 01	2,055 98	—	500 00	1,468 47	32,267 60
Hawley, .	850 00	—	44 83	188 91	74 09	—	—	—	15 59	1,173 42
Heath, .	875 00	138 00	69 00	—	67 51	15 00	—	—	6 83	1,033 34
Leverett, .	925 99	102 50	78 60	150 00	107 32	14 79	—	—	51 90	1,328 60
Leyden, .	700 00	40 00	45 00	—	170 88	9 00	—	—	4 25	929 13
Monroe, .	600 00	120 00	9 00	94 22	95 91	—	—	—	—	799 23
Montague, .	17,442 74	—	200 00	—	1,443 10	487 40	—	465 40	677 08	20,715 72
New Salem, .	1,500 00	8 90	49 50	—	250 28	—	—	—	84 37	1,864 15
Northfield, .	3,634 77	196 60	13 75	259 56	288 23	50 00	—	123 00	65 41	4,464 72
Orange, .	14,376 73	936 25	375 00	597 78	1,774 68	378 64	—	745 54	339 46	18,687 83
Rowe, .	1,072 25	103 00	40 25	125 88	1,97 92	10 00	—	—	5 90	1,352 20
Shelburne, .	5,247 29	250 25	—	225 00	289 97	74 85	—	—	297 89	6,135 00
Shutesbury, .	1,900 00	129 00	50 00	—	123 57	10 56	—	—	8 15	1,164 33
Sunderland, .	1,900 00	662 55	42 50	83 49	190 50	10 00	—	—	15 80	2,242 29
Warwick, .	1,100 00	384 00	6 00	201 96	93 46	8 00	—	61 11	—	1,470 53

SCHOOL RETURNS.

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Wendell, . . .	783 34	52 25	35 00	39 85	90 57	29 88	38 03	1,016 67
Whately, . . .	1,600 00	35 00	75 00	94 72	151 38	50 00	48 69	2,019 79
Totals, . . .	\$102,325 53	\$5,655 50	\$1,922 25	\$5,590 24	\$10,604 16	\$3,661 55	\$2,192 34	\$130,420 02

HAMPDEN COUNTY — CONTINUED.

Agawam, . . .	\$5,436 15	-	-	\$396 65	\$305 90	\$15 41	-	\$312 75	\$6,466 86
Blandford, . . .	2,050 00	\$333 55	\$34 30	70 00	153 66	118 34	-	25 76	2,443 38
Brimfield, . . .	1,510 00	57 75	96 00	225 00	124 69	66 00	-	102 53	2,062 52
Chester, . . .	2,150 00	87 60	-	325 17	350 78	10 00	-	-	2,931 95
Chicopee, . . .	33,797 04	447 35	-	1,800 00	2,853 48	2,890 74	\$13,380 75	1,445 73	63,541 74
East Longmeadow, . . .	3,218 37	-	63 75	167 44	226 84	123 05	-	401 75	4,204 20
Granville, . . .	2,758 95	374 00	58 00	250 00	256 15	125 00	-	40 00	3,831 10
Hampden, . . .	1,300 00	221 97	92 00	139 82	114 03	-	-	-	1,785 73
Holland, . . .	225 00	49 10	25 00	-	45 90	4 00	-	-	322 93
Holyoke, . . .	136,099 79	139 00	600 00	3,500 00	13,074 24	12,825 94	204,700 80	6,471 95	377,272 72
Longmeadow, . . .	2,300 00	57 00	41 50	149 32	167 08	-	-	64 60	2,722 50
Ludlow, . . .	6,669 29	226 00	175 00	97 68	525 82	40 00	-	140 68	7,798 47
Monson, . . .	9,976 59	517 50	150 00	525 00	807 95	154 95	-	327 60	11,942 09
Montgomery, . . .	600 00	-	23 00	-	169 60	-	-	3 25	795 85
Palmer, . . .	18,093 28	1,312 00	-	500 00	1,069 64	864 10	-	287 50	20,975 77
Russell, . . .	1,500 00	-	81 00	-	183 09	-	-	39 00	1,837 14
Southwick, . . .	1,650 00	94 80	56 95	250 00	214 44	-	-	50 31	2,221 70
Springfield, . . .	201,115 32	296 68	2,805 79	4,000 00	23,285 63	8,472 93	205,949 20	9,979 23	493,971 10
Tolland, . . .	600 00	-	54 00	-	146 08	16 00	-	175 08	991 16
Wales, . . .	1,945 50	84 50	-	150 00	208 26	14 50	-	25 00	2,343 26
Westfield, . . .	35,034 93	460 00	-	1,900 00	2,580 16	809 06	12,447 96	1,743 53	54,767 56
West Springfield, . . .	23,295 28	-	-	1,800 00	3,238 43	480 57	15,000 00	1,598 95	45,413 23
Wilbraham, . . .	3,620 00	20 00	150 75	201 66	288 69	11 55	-	200 00	4,472 65
Totals, . . .	\$494,945 49	\$4,778 80	\$4,507 04	\$16,507 74	\$50,390 59	\$27,042 14	\$451,478 71	\$23,461 23	\$1,115,115 61

FRANKLIN COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for public schools.	Amount of local funds, the income of which can be appropriated only for the support of schools and academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan 25, 1898.	How much of said fund was used for apparatus and books of reference.
					No. of academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of private schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Ashfield,	\$900 00	\$54 00	\$82 59	1 *	-	\$50 00	-	-	-	\$381 29	\$40 00
Barnardston,	15,436 07	617 44	97 58	-	-	-	-	-	-	541 71	-
Buckland,	750 00	45 00	104 49	-	-	-	-	-	-	345 02	9 75
Charlemont,	2,869 00	157 50	57 89	-	-	-	-	-	-	470 86	-
Cohain,	-	-	130 21	-	-	-	-	-	-	381 28	14 80
Conway,	2,000 00	90 00	-	-	-	-	-	6	\$1,200 00	345 02	-
Deerfield,	50,000 00	2,500 00	128 89	1	40	80 00	-	-	-	281 28	-
Erving,	-	-	61 42	-	460	28,200 00	1	7	250 00	531 28	-
Gill,	-	-	-	1	15	1,500 00	2	50	1,050 00	481 28	-
Greenfield,	-	-	-	1	-	-	-	-	-	-	-
Hawley,	400 00	23 73	-	-	-	-	-	-	-	495 02	-
Heath,	-	-	53 48	-	-	-	-	-	-	531 28	-
Leverett,	-	-	63 62	-	-	-	-	-	-	445 02	-
Leyden,	-	-	-	-	-	-	-	-	-	300 00	-
Monroe,	-	-	-	-	-	-	-	-	-	470 86	-
Montague,	-	-	-	-	-	-	4	230	230 00	-	-
New Salem,	2,500 00	135 00	-	1	14	150 00	-	-	-	481 28	-
Northfield,	1,600 00	64 00	194 60	1	382	28,825 00	-	-	-	345 03	-
Orange,	-	-	-	1	-	-	1	11	140 00	281 28	-
Rowe,	200 00	-	39 37	-	-	-	-	-	-	531 28	97 92
Shelburne,	25,400 00	1,289 80	96 70	2	126	2,416 25	-	-	-	381 28	10 00
Shutesbury,	280 00	14 00	64 50	-	-	-	-	-	-	470 85	15 00
Sunderland,	-	-	-	-	-	-	-	-	-	541 71	-
Warwick,	500 00	20 20	-	-	-	-	1	11	132 00	445 03	-

SCHOOL RETURNS.

xxxiii

Wendell, . . .	\$5 00	540 00	32 40	56 57	-	-	-	-	-	-	350 00	-
Whately, . . .	-	-	-	-	-	-	-	-	-	-	420 85	-
Totals, . . .	\$5 00	\$103,375 07	\$5,043 07	\$1,231 91	8	1,037	\$61,221 25	10	315	\$3,002 00	\$10,199 79	\$187 47

HAMPDEN COUNTY — CONCLUDED.

Agawam, . . .	-	\$4,000 00	\$193 00	-	-	-	-	1	50	-	\$281 29	-
Blandford, . . .	-	3,500 00	175 00	\$122 89	-	-	-	-	-	-	481 29	\$10 00
Brimfield, . . .	-	66,761 75	3,930 62	-	73	-	-	1	-	-	495 02	-
Chester, . . .	-	-	-	-	-	-	-	3	730	\$59 00	345 02	-
Chicopee, . . .	-	-	-	-	-	-	-	-	-	-	-	-
East Longmeadow, . . .	-	731 00	29 52	147 58	-	-	-	-	-	-	441 71	-
Granville, . . .	-	-	-	83 30	-	-	-	-	-	-	495 02	50 00
Hampden, . . .	-	-	-	71 47	-	-	-	-	-	-	481 28	-
Holland, . . .	-	222 22	13 33	-	-	-	-	-	-	-	420 86	-
Holyoke, . . .	-	-	-	-	-	-	-	-	-	-	-	-
Longmeadow, . . .	-	-	-	1,856 28	-	-	-	6	3,051	30,500 00	-	-
Ludlow, . . .	-	-	-	-	-	-	-	-	-	-	441 71	-
Monson, . . .	-	71,000 00	-	119 07	-	-	-	-	-	-	341 71	-
Montgomery, . . .	-	-	3,200 00	408 73	121	-	\$3,139 50	-	-	-	281 28	-
Palmer, . . .	-	850 00	-	40 60	-	-	-	-	-	-	541 71	-
Russell, . . .	-	-	34 34	504 19	-	-	-	3	150	2,250 00	231 28	143 36
Southwick, . . .	-	15,618 03	763 71	-	-	-	-	-	-	-	445 03	-
Springfield, . . .	\$2,663 87	-	-	143 75	-	-	-	-	-	-	470 85	-
Tolland, . . .	-	-	-	-	-	-	-	6	1,695	14,500 00	-	-
Wales, . . .	-	-	-	75 71	-	-	-	-	-	-	420 85	146 08
Westfield, . . .	-	140,000 00	5,096 81	-	1*	-	-	-	-	-	541 71	-
West Springfield, . . .	-	14,000 00	705 04	-	-	-	-	-	-	-	-	-
Wilbraham, . . .	-	1,308 40	78 50	-	1	228	10,665 00	-	-	-	-	-
Totals, . . .	\$2,663 87	\$317,991 40	\$14,219 87	\$3,573 57	4	422	\$13,804 50	20	5,682	\$47,349 00	\$7,502 65	\$366 44

* United with high school.

HAMPSHIRE COUNTY.

TOWNS.	Population - State Census, 1895.	Valuation - 1897.	No. of public schools.	No. of persons in town May 1, 1897, between 5 and 15 years of age.	No. of persons in town May 1, 1897, between 8 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the public schools.
Amherst.	4,785	\$3,107,389	18	644	429	816	7	149	430	679	638	.94	22
Belchertown.	2,161	868,610	20	488	312	539	9	42	312	436	400	.92	21
Chesterfield.	589	277,774	6	81	55	99	1	19	55	79	73	.91	6
Cummington.	750	283,254	6	116	72	139	4	11	74	106	104	.98	6
Easthampton.	4,790	2,849,682	22	835	483	1,030	4	108	563	833	790	.95	26
Enfield.	990	583,120	7	211	130	238	2	21	132	176	166	.94	7
Goshen.	304	136,592	3	69	38	67	1	3	37	53	48	.90	3
Granby.	748	432,236	9	115	68	170	6	26	93	134	118	.88	9
Greenwich.	481	249,865	3	74	49	78	-	5	48	61	56	.91	3
Hadley.	1,704	954,212	13	283	185	307	8	8	182	248	225	.91	13
Hatfield.	1,262	969,665	8	235	161	239	6	1	161	203	178	.88	8
Huntington.	1,450	496,877	9	292	183	326	1	22	203	271	245	.90	9
Middlefield.	386	197,491	5	70	45	111	5	7	64	95	89	.94	5
Northampton.	16,746	11,401,268	63	2,844	1,722	2,660	54	292	1,485	2,340	2,215	.95	81
Pelham.	486	175,985	4	90	59	97	1	3	59	75	64	.85	4
Pianfield.	450	157,988	6	75	44	86	-	6	57	86	71	.83	5
Prescott.	401	161,502	5	43	32	72	3	8	37	57	51	.89	5
Southampton.	1,054	485,480	8	204	114	211	-	14	115	158	138	.87	8
South Hadley.	4,443	2,072,297	22	768	460	996	1	77	565	783	736	.94	26
Ware.	7,651	4,117,500	24	1,386	850	1,341	-	97	701	1,009	952	.94	28
Westhampton.	476	216,459	5	91	65	88	3	2	65	79	74	.95	5
Williamsburg.	1,955	853,396	15	385	223	472	-	35	244	379	341	.90	17
Worthington.	648	309,676	8	132	88	174	1	12	100	122	109	.89	8
Totals.	54,710	\$31,358,318	289	9,532	5,867	10,356	117	968	5,782	8,463	7,881	.93	325

SCHOOL RETURNS.

XXXV

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended normal schools.	No. of teachers who have graduated from normal schools.	A'v'g wages per month of male teachers in public schools.	A'v'g wages per month of female teachers in public schools.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept for the entire year.	No. of schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of principal.
										No. of high schools.	No. of teachers.	No. of pupils.	How supported.	Length. Months. Days.	
Amherst,	3	26	11	9	\$97 37	\$42 62	153-10	9	-	1	5	127	Taxation.	9-10	\$1,400 00
Belchertown,	4	23	3	-	48 44	27 88	139-15	8	-	1	2	84	Part tax.	9	800 00
Cherterfield,	1	7	1	-	26 66	22 65	45	7-10	-	-	-	-	-	-	-
Cummington,	2	6	1	1	32 00	27 00	44-5	7-7	-	-	-	-	-	-	-
Easthampton,	3	24	7	7	118 33	36 01	194-15	8-18	-	1	3	83	Taxation.	9-15	1,500 00
Enfield,	-	9	5	4	-	34 00	64	9-2	-	1	1	21	Taxation.	9-10	475 00
Gosben,	-	4	2	2	-	32 00	24	8	-	1	1	-	-	-	-
Greenwich,	-	10	2	2	-	27 50	71-10	8-10	-	1	1	27	Taxation.	9	500 00
Hadley,	-	5	2	2	-	35 11	26-4	8-14	-	1	-	-	-	-	-
Hatfield,	-	17	2	1	-	27 77	107-5	8-5	-	1*	2	43	Not by tax.	9-10	800 00
Huntington,	-	10	3	3	61 33	30 86	72	9	-	-	-	-	-	-	-
Middlefield,	1	13	5	2	40 00	31 43	68-8	7-12	-	-	-	-	-	-	-
Northampton,	6	80	31	23	126 00	43 24	35-16	7-3	-	-	-	-	-	-	-
Pelham,	1	5	1	1	32 00	28 00	614-14	9-15	-	1	8	187	Taxation.	9-18	1,700 00
Plainfield,	3	5	1	-	32 00	29 13	30	7-10	-	-	-	-	-	-	-
Prescott,	1	8	1	-	24 80	24 80	38-5	6-16	-	-	-	-	-	-	-
Southampton,	-	13	3	2	-	30 50	63-15	7-13	-	1	1	30	Taxation.	10	400 00
South Hadley,	4	28	4	4	96 78	39 18	209	8-14	-	1	2	58	Taxation.	9-10	1,100 00
Ware,	5	27	7	5	111 00	42 71	231	9-12	-	1	5	124	Taxation.	9-13	2,000 00
Westhampton,	-	5	1	-	-	32 50	32	8	-	-	-	-	-	-	-
Williamsburg,	3	18	7	2	56 00	29 06	116-19	8	-	2	4	66	Taxation.	{ 8 8	448 00
Worthington,	1	11	-	-	24 00	24 64	66	8-5	-	-	-	-	-	-	448 00
Totals,	39	360	101	70	\$78 86	\$33 80	2,502-1	8-13	-	12	34	850	-	9-5	\$11,571 00

* Hopkins Academy.

HAMPSHIRE COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools — wages of teachers, transportation, fuel, care of fires and schoolrooms—for 1897-98.	Expense for transportation, included also in the preceding column.	Expense of supervision, by school committee, including clerical aid.	Salary of superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, censuses, etc.)	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Amherst, .	\$11,967 43	\$822 61	\$150 00	\$1,500 00	\$1,072 83	\$474 65	-	\$562 00	\$437 62	\$16,164 53
Belchertown, .	4,500 00	-	260 00	-	409 99	41 37	-	-	243 10	5,454 46
Chesterfield, .	925 00	120 75	63 00	-	83 94	20 89	-	-	39 27	1,132 10
Cummington, .	600 00	195 50	46 25	-	132 87	7 06	-	66 80	50 40	903 38
Easthampton, .	14,084 79	495 05	-	581 21	1,113 63	473 86	-	106 93	1,019 86	17,380 28
Enfield, .	2,575 00	204 00	158 00	-	432 00	-	-	-	117 00	3,282 00
Goshen, .	400 00	-	26 00	-	39 77	7 00	-	-	28 58	501 35
Granby, .	1,600 00	112 00	60 00	222 87	413 97	63 55	-	119 22	15 75	2,495 36
Greenwich, .	978 58	339 00	50 00	-	89 11	-	-	-	9 85	1,127 54
Hadley, .	3,474 15	-	133 50	-	336 82	8 25	-	-	452 65	4,405 37
Hatfield, .	2,550 00	-	80 00	254 07	301 46	-	-	44 83	237 05	3,467 41
Huntington, .	2,570 00	135 00	128 30	-	206 08	7 00	-	163 87	67 80	3,143 05
Middlefield, .	800 00	82 70	26 00	131 00	201 00	7 00	-	222 56	4 00	1,391 56
Northampton, .	44,681 55	1,080 62	390 20	1,800 00	3,768 82	1,271 18	\$20,800 00	-	2,831 65	75,443 40
Pelham, .	438 52	-	50 00	-	93 73	5 35	-	103 00	8 10	698 70
Plainfield, .	500 00	31 80	68 75	-	143 88	6 40	-	-	5 81	724 84
Prescott, .	800 00	43 50	43 00	-	67 46	9 64	-	-	48 51	968 61
Southampton, .	11,600 00	92 00	89 50	121 56	153 11	5 00	-	-	119 14	2,088 31
South Hadley, .	11,444 02	22 50	200 00	532 26	1,586 43	279 93	495 00	-	730 15	16,267 79
Ware, .	21,501 49	1,680 70	-	2,000 00	1,512 83	1,015 53	-	4,196 72	1,686 87	31,913 44
Westhampton, .	1,000 00	191 00	36 75	47 15	70 84	18 31	-	57 30	23 00	1,253 35
Williamsburg, .	3,500 00	117 00	200 00	369 50	488 30	311 88	-	-	110 70	4,980 38
Worthington, .	829 50	29 50	75 00	-	161 89	21 50	-	165 43	38 03	1,291 35
Totals, .	\$133,220 03	\$5,795 23	\$2,334 25	\$7,559 62	\$12,880 76	\$4,055 35	\$21,295 00	\$5,808 66	\$8,324 89	\$195,478 56

HAMPSHIRE COUNTY — CONCLUDED.

SCHOOL RETURNS.

xxxvii

TOWNS.	Amount of voluntary contributions for public schools.	Amount of local funds, the income of which can be appropriated only for the support of schools and academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan 25, 1898.	How much of said fund was used for apparatus and books of reference.
					No. of academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of private schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Amherst, .	\$400 00	\$6,000 00	\$257 50	\$330 23	1	1	—	6	92	\$7,232 00	\$441 70	—
Belchertown, .	—	500 00	18 00	62 34	—	—	—	—	—	—	420 86	—
Chesterfield, .	—	—	—	104 21	—	—	—	—	—	—	531 28	—
Cummington, .	—	—	—	235 28	1	104	\$8,234 00	—	—	—	231 28	—
Easthampton, .	—	—	—	—	—	—	—	—	—	—	441 71	—
Enfield, .	—	—	—	—	—	—	—	—	—	—	300 00	—
Goshen, .	—	—	—	—	—	—	—	—	—	—	481 28	—
Granby, .	—	500 00	30 00	—	—	—	—	—	—	—	300 00	—
Greenwich, .	—	40,000 00	1,800 00	—	1*	43	—	—	—	—	345 02	—
Hadley, .	—	45,498 96	3,047 68	130 45	1	50	286 50	—	—	—	345 02	—
Hatfield, .	—	—	—	136 17	—	—	—	—	—	—	381 28	—
Huntington, .	—	500 00	20 00	31 00	—	—	—	—	—	—	481 28	—
Middlefield, .	—	3,000 00	121 20	1,106 85	—	—	—	4	450	350 00	481 28	\$28 00
Northampton, .	—	—	—	81 98	—	—	—	—	—	—	—	—
Pelham, .	—	—	—	38 90	—	—	—	—	—	—	481 28	—
Plainfield, .	—	—	—	—	—	—	—	—	—	—	445 03	—
Prescott, .	—	—	—	18 11	—	—	—	—	—	—	481 28	—
Southampton, .	—	—	—	266 77	—	—	—	—	—	—	445 03	—
South Hadley, .	—	—	—	—	—	—	—	—	—	—	231 28	—
Ware, .	—	—	—	—	—	—	—	1	450	—	—	—
Westhampton, .	—	16,000 00	701 56	148 67	—	—	—	—	—	—	481 28	28 75
Williamsburg, .	—	1,663 50	123 89	207 27	—	—	—	—	—	—	381 28	90 00
Worthington, .	—	—	—	—	—	—	—	1	15	—	445 03	—
Totals, .	\$400 00	\$113,660 46	\$6,119 83	\$2,888 23	3	197	\$8,520 50	12	1,007	\$7,682 00	\$8,092 20	\$146 75

* United with high school.

MIDDLESEX COUNTY.

TOWNS.	Population - State Census, 1895.	Valuation - 1897.	No. of public schools.	No. of persons in town May 1, 1897, between 5 and 15 years of age.	No. of persons in town May 1, 1897, between 15 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the public schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the public schools.
Acton, .	1,978	\$1,535,985	9	260	166	333	1	39	197	275	259	.94	11
Arlington, .	6,515	8,074,093	29	1,067	686	1,437	2	325	872	1,225	1,137	.93	36
Ashby, .	804	1,469,749	6	115	78	142	2	26	78	129	120	.93	6
Ashland, .	2,090	1,170,856	9	328	208	445	-	39	256	363	343	.94	10
Ayer, .	2,101	1,369,936	11	387	221	534	12	78	278	426	404	.95	12
Bedford, .	1,169	1,004,189	5	206	124	246	11	10	146	190	176	.93	6
Belmont, .	2,843	4,217,795	13	436	227	590	-	94	275	500	438	.88	16
Billerica, .	2,677	1,828,220	14	490	300	539	12	14	301	446	415	.93	15
Boxborough, .	307	228,017	4	61	49	68	3	4	49	56	54	.96	4
Burlington, .	574	507,518	4	89	54	82	3	4	63	63	58	.91	4
Cambridge, .	81,643	86,641,745	306	14,401	8,587	14,373	326	1,397	6,908	12,317	11,397	.92	352
Carlisle, .	492	348,303	4	78	52	94	1	6	57	62	57	.92	4
Chelmsford, .	3,162	2,263,310	19	563	339	699	7	43	499	582	512	.93	19
Concord, .	5,175	3,880,115	14	697	408	951	5	203	426	802	744	.93	24
Draut, .	2,443	2,027,175	13	480	294	540	2	13	287	409	373	.91	14
Dunstable, .	400	286,227	8	51	30	65	1	5	36	53	52	.97	2
Everett, .	18,573	14,928,000	83	3,713	2,289	5,259	-	373	2,791	3,789	3,576	.94	107
Framingham, .	9,512	7,999,206	45	1,820	1,084	2,166	8	266	1,152	1,883	1,776	.94	56
Groton, .	2,192	2,701,653	14	378	229	465	18	49	253	435	328	.80	15
Holliston, .	2,718	1,536,160	13	363	223	500	-	41	303	435	411	.94	16
Hopkinton, .	2,984	1,818,500	17	433	258	621	14	87	325	506	467	.92	19
Hudson, .	5,308	2,908,750	20	911	565	1,108	19	90	999	916	859	.94	26
Lexington, .	3,498	4,565,717	16	543	339	623	1	66	350	539	508	.94	19
Lincoln, .	1,111	1,865,277	5	143	120	199	-	29	111	153	138	.90	7
Littleton, .	1,136	871,116	7	185	117	249	3	45	118	200	190	.95	8
Lowell, .	84,367	70,386,170	256	14,432	7,927	13,386	760	1,511	6,727	10,067	9,307	.92	266

SCHOOL RETURNS.

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Malden,	29,708	25,385,520	128	5,303	3,118	5,897	81	689	3,014	4,792	4,501	.94	160
Marlborough,	14,977	8,972,355	13	3,287	1,931	2,967	1	270	1,533	2,484	2,269	.91	69
Maynard,	3,090	2,172,540	61	570	423	617	5	67	373	569	540	.95	15
Medford,	14,474	18,348,500	60	2,678	1,563	3,666	202	450	1,809	2,802	2,617	.93	92
Melrose,	11,965	12,208,815	58	2,065	1,385	2,482	-	197	1,326	2,271	2,078	.91	75
Metairie,	8,814	5,698,350	36	1,538	932	1,868	-	338	964	1,682	1,574	.94	47
Natick,	27,590	52,022,000	104	5,054	2,521	5,428	365	721	2,335	4,571	4,226	.92	150
Newton,	835	513,527	4	144	83	164	4	15	94	135	126	.93	4
North Reading,	3,321	2,088,268	18	597	430	698	8	62	485	697	557	.93	21
Pepperell,	4,717	4,140,271	20	864	596	1,018	-	133	596	851	802	.94	25
Reading,	1,446	785,770	5	183	112	227	-	6	158	159	145	.91	5
Shirborn,	1,399	740,589	8	221	164	261	1	4	167	210	190	.90	8
Shirley,	52,200	50,173,775	208	9,113	5,449	11,293	392	1,214	5,397	8,589	8,144	.95	249
Somerville,	6,284	4,894,460	26	970	657	1,221	11	177	583	983	938	.95	29
Stonham,	920	678,033	6	128	96	162	2	12	123	116	108	.93	6
Stow,	1,141	1,104,790	7	156	97	197	-	24	99	167	156	.93	8
Sudbury,	3,379	1,611,656	12	463	292	509	6	23	298	375	341	.91	13
Tewksbury,	1,780	1,107,910	9	281	205	320	-	64	205	267	249	.93	11
Townsend,	635	387,200	4	88	54	105	1	8	58	80	74	.92	4
Tyngsborough,	8,304	7,231,705	36	1,563	874	1,893	-	266	994	1,597	1,497	.94	42
Wakfield,	20,876	18,788,314	61	3,704	2,100	2,911	6	346	1,471	2,605	2,462	.94	81
Waltham,	7,788	9,795,058	25	1,244	780	1,290	39	144	696	1,036	968	.93	33
Watertown,	2,026	1,527,205	13	422	209	448	5	32	246	407	377	.93	13
Wayland,	2,418	1,259,554	18	381	273	553	15	77	305	433	401	.92	18
Westford,	1,710	3,195,931	6	205	117	276	3	48	130	222	208	.93	8
Weston,	1,420	1,035,190	9	284	183	322	2	23	198	266	246	.92	9
Wilmington,	6,150	7,282,435	27	1,143	691	1,601	159	195	782	1,249	1,129	.90	47
Winchester,	14,178	9,819,276	54	3,189	1,687	2,824	49	290	1,451	2,536	2,309	.91	62
Woburn,													
Totals,	499,217	\$478,402,809	1,970	86,468	51,899	96,932	2,567	10,742	49,732	78,817	73,331	.93	2,378

BOARD OF EDUCATION.

MIDDLESEX COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.		Whole No. of different female teachers in school year.		No. of teachers who have attended normal schools.	No. of teachers who have graduated from normal schools.	Av'g wages per month of male teachers in public schools.	Av'g wages per month of female teachers in public schools.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept for the entire year.	No. of schools kept less than the time required by law.	HIGH SCHOOLS.					
	No. of high schools.	No. of teachers.	No. of pupils.	How supported.								Months.	Length.	Salary of principal.			
Acton, .	1	12	8	5	\$111 11	\$39 58	78	8-11	1	2	55	Taxation.	9	\$1,000 00			
Arlington, .	3	44	14	2	180 00	57 16	275	10	1	6	121	Taxation.	10	2,200 00			
Ashby, .	.	10	3	9	.	35 84	47-10	7-18	1	1	22	Taxation.	10	450 00			
Ashland, .	2	13	8	5	105 50	39 34	79	8-15	1	2	56	Taxation.	10	1,000 00			
Ayer, .	1	12	6	5	110 00	41 00	102	9-5	1	2	72	Taxation.	10	1,100 00			
Bedford, .	1	8	4	4	46 40	47-10	47-10	9-10	1	1	31	Taxation.	9-10	570 00			
Belmont, .	1	16	4	2	150 00	51 33	123	9-13	1	4	98	Taxation.	10	1,500 00			
Billerica, .	3	14	6	6	60 00	41 17	123	9-10	1*	2	42	Not by tax.	9-15	866 65			
Boxborough, .	.	4	1	1	40 00	34	34	8-10	1	1	1	-	-	-			
Burlington, .	.	5	1	1	.	33 36	36	9	1	1	1	-	-	-			
Cambridge, .	25	343	239	219	183 00	63 00	3,060	10	2	39	1,101	Taxation.	{ 10 10	3,000 00 3,000 00			
Carlisle, .	.	5	3	1	.	36 36	33	9	1	1	1	-	-	-			
Chelmsford, .	3	19	8	7	84 00	36 94	169-13	8-18	2	2	36	Taxation.	{ 9 8-15	756 00 756 00			
Concord, .	1	27	5	5	190 00	57 95	133-7	9-11	1	7	193	Taxation.	9-18	1,900 00			
Dracut, .	.	22	10	8	.	57 55	108-9	9-15	1	1	1	-	-	-			
Dunstable, .	.	3	3	3	.	37 43	21	7	1	1	1	-	-	-			
Everett, .	7	110	54	42	126 25	54 03	723-16	9-1	1	10	361	Taxation.	9-5	2,000 00			
Framingham, .	4	58	33	28	143 33	44 31	403-15	9-6	1	7	213	Taxation.	9-15	2,000 00			
Groton, .	1	16	6	4	136 84	40 44	118-5	8-13	1	2	58	Taxation.	9-5	1,300 00			
Holliston, .	1	15	6	3	90 00	42 56	113-7	8-14	1	2	59	Taxation.	9-13	900 00			
Hopkinton, .	2	17	7	2	70 00	40 25	155	9-2	1	3	99	Taxation.	10	1,000 00			
Hudson, .	3	31	10	4	113 16	39 57	182-10	9-1	1	4	125	Taxation.	9-10	1,200 00			
Lexington, .	2	21	5	5	164 00	49 16	144-12	9-11	1	4	70	Taxation.	9-12	1,640 00			
Lincoln, .	1	9	2	2	86 85	43 68	47-10	9-10	1	2	20	Taxation.	9-10	820 00			
Littleton, .	1	12	4	4	90 00	42 90	63-4	9-4	1	2	51	Taxation.	10	860 00			
Lowell, .	19	287	32	44	168 75	60 26	2,364	9	1	24	993	Taxation.	9-6	2,500 00			

SCHOOL RETURNS.

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	16	153	83	51	135 90	58 80	1,152	9	-	1	18	543	Taxation.	9-6	2,200 00
Malden,	2	75	11	9	145 56	53 03	572-10	9-11	-	1	8	246	Taxation.	10	1,800 00
Marlborough,	2	8	8	3	102 36	45 00	126-15	9-15	-	1	3	40	Taxation.	9-15	1,000 00
Maynard,	16	87	30	28	133 33	58 07	543-8	9-2	-	1	20	520	Taxation.	9-17	2,500 00
Medford,	11	64	31	24	123 65	52 18	485	9-8	-	1	9	274	Taxation.	9-14	2,100 00
Melrose,	16	52	25	15	120 52	48 55	318-10	8-17	-	1	9	308	Taxation.	9-15	1,750 00
Natick,	16	134	73	64	208 44	62 34	360	10	-	1	21	580	Taxation.	10	3,250 00
Newton,	6	6	3	3	-	49 33	34-16	8-14	-	1	1	26	Taxation.	8-14	540 00
North Reading,	3	27	13	11	100 00	38 35	155	9-3	-	1	3	65	Taxation.	10	1,000 00
Pepperell,	30	30	10	9	170 00	49 24	194-1	9-9	-	1	6	183	Taxation.	9-15	1,700 00
Reading,	1	8	2	1	-	35 20	44-5	8-17	-	1†	2	38	Part tax.	9-5	750 00
Sherborn,	1	13	9	5	50 00	35 54	73-15	9-7	-	-	-	-	-	-	-
Shirley,	23	240	98	91	167 05	63 29	1,892-11	9-6	-	2	31	891	Taxation.	{ 9-16 9-16	2,500 00
Somerville,	1	32	9	6	170 00	44 37	227-11	8-15	-	1	4	98	Taxation.	9-11	1,700 00
Stonham,	2	9	2	2	64 45	34 00	54	9	-	1	1	24	Part tax.	9	800 00
Stow,	2	9	4	3	126 06	38 83	49-10	8-5	-	1	2	26	Taxation.	8-5	1,040 00
Sudbury,	17	9	9	9	49 17	49 17	105-18	8-17	-	1	2	40	Taxation.	9-15	750 00
Tewksbury,	14	4	4	2	-	39 00	82	9-10	-	1	2	40	Taxation.	10	550 00
Townsend,	7	2	2	2	-	175 91	36-5	9-1	-	-	-	-	-	-	-
Tyngsborough,	1	46	14	10	185 00	50 11	335-14	9-14	-	1	6	223	Taxation.	9-17	1,900 00
Wakefield,	1	84	34	32	159 00	59 64	530-10	9	-	1	12	285	Taxation.	9	2,300 00
Waltham,	3	30	8	6	163 33	55 83	236-5	9-9	-	1	5	79	Taxation.	9-8	2,000 00
Watertown,	1	16	6	5	86 00	45 00	109-8	9-2	-	1	2	20	Taxation.	9-1	740 00
Wayland,	1	27	6	6	141 67	37 00	143-13	8-7	-	1†	2	32	Taxation.	9-15	1,700 00
Westford,	1	7	3	3	163 04	58 62	55-4	9-4	-	1	3	56	Taxation.	9-4	1,500 00
Weston,	2	12	3	2	60 00	40 50	80-15	8-19	-	1	2	42	Taxation.	10	600 00
Wilmington,	5	50	15	11	94 00	44 72	258	9-11	-	1	9	326	Taxation.	10	2,000 00
Winchester,	5	57	2	6	116 00	56 10	540	10	-	1	9	242	Taxation.	10	1,900 00
Woburn,	211	2,455	999	838	\$146 89	\$55 50	18,185-12	9-4	-	50	320	9,123	-	9-12	\$75,388 65
Totals,															

* Howe incorporated Academy. † United with Savin Academy. ‡ Westford Academy.

BOARD OF EDUCATION.

MIDDLESEX COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools — wages of teachers, transporta- tion, fuel, care of fires and schoolrooms—for 1897-98.	Expense for trans- portation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of superintend- ent or town's share of it.	Expense of books, sta- tionery and school supplies.	Stundtes (reports, cen- sus, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and per- manent improve- ments.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by tax- ation.
Acton,	\$4,950 00	\$510 00	\$100 27	\$240 00	\$472 38	\$50 00	-	\$156 49	\$224 47	\$6,193 61
Arlington,	29,287 28	-	200 00	-	3,337 92	2,475 66	-	-	1,132 43	36,483 29
Ashby,	1,800 00	494 99	-	300 00	352 84	20 00	-	245 89	134 88	2,853 61
Ashland,	5,931 00	863 00	65 00	300 00	500 00	17 50	-	-	130 00	6,963 50
Ayer,	6,700 00	-	-	340 00	1,019 72	21 78	-	-	286 71	7,562 09
Bedford,	3,989 12	913 50	-	200 00	291 25	148 30	-	193 88	-	4,628 67
Belmont,	13,053 97	-	50 00	1,000 00	1,071 47	382 52	\$25,662 67	533 10	50 25	41,803 98
Billerica,	7,026 39	257 75	180 00	500 00	393 19	220 09	-	-	235 74	8,555 41
Boxborough,	713 00	-	-	50 00	100 00	10 00	-	-	100 00	973 00
Burlington,	1,540 53	-	45 00	100 00	120 87	74 30	-	-	17 95	1,898 70
Cambridge,	296,768 26	450 00	3,180 00	3,000 00	17,648 36	1,820 53	124,945 09	8,933 15	9,928 24	466,223 63
Carlisle,	1,000 00	204 00	-	187 50	86 58	-	-	73 87	45 67	1,393 62
Chelmsford,	8,080 82	-	50 00	450 00	760 83	111 41	5,382 88	556 19	133 20	15,545 03
Concord,	19,088 81	2,663 00	78 50	500 00	1,517 75	1,077 10	17,558 00	1,800 00	513 26	42,133 42
Dracut,	8,144 10	505 00	-	420 00	481 53	130 03	-	-	615 62	9,791 28
Dunstable,	1,195 78	638 88	9 00	112 50	89 42	15 39	-	-	50 39	1,472 48
Everett,	70,301 06	-	500 00	2,250 00	7,179 10	5,567 19	24,733 67	5,415 60	3,935 53	119,882 15
Framingham,	37,095 67	2,500 00	-	2,000 00	2,999 21	1,042 44	8,653 64	-	2,498 59	54,289 55
Groton,	7,325 00	174 50	101 66	220 00	645 62	242 86	-	326 87	256 89	9,118 90
Holliston,	7,751 90	1,295 05	100 00	425 00	733 13	155 04	1,000 00	-	385 31	10,550 38
Hopkinton,	9,000 00	451 58	-	450 00	600 00	25 00	-	-	408 00	10,483 00
Hudson,	14,542 29	567 50	300 00	552 62	2,060 98	295 21	-	-	700 00	18,451 10
Lexington,	15,065 28	2,406 25	300 00	300 00	1,922 78	530 61	-	1,186 70	461 29	18,866 66
Lincoln,	4,647 19	890 20	-	200 00	339 05	111 13	-	282 49	159 76	5,739 62
Littleton,	4,424 00	523 00	-	174 10	466 92	64 33	-	640 82	45 24	5,815 41
Lowell,	253,239 09	-	560 50	3,000 00	12,543 11	33,337 70	126,869 87	-	23,236 21	452,786 48

SCHOOL RETURNS.

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Malden,	121,610 00	-	750 00	2,500 00	11,081 00	11,381 00	12,722 00	9,688 00	7,551 00	177,288 00
Marlborough,	40,876 81	883 00	-	1,935 00	4,504 49	2,175 55	16,820 89	12,494 09	2,624 24	81,431 07
Maynard,	8,105 92	-	-	-	870 61	166 00	-	-	240 76	9,383 29
Medford,	74,730 17	600 00	650 00	2,500 00	5,996 66	2,897 82	-	-	1,511 82	90,086 27
Melrose,	46,517 79	-	-	2,000 00	9,555 87	3,204 84	88,027 19	7,294 65	1,430 89	168,031 23
Natick,	26,119 36	-	-	1,350 00	2,781 14	1,944 44	-	556 00	752 43	33,503 87
Newton,	139,941 84	223 00	700 00	3,800 00	10,469 87	3,528 81	77,500 00	9,488 55	1,133 67	246,562 74
North Reading,	3,126 94	900 00	54 80	105 00	292 79	12 00	-	-	80 24	3,671 77
Pepperell,	9,920 04	768 35	-	400 00	923 04	528 38	13,679 64	1,400 00	608 31	27,459 41
Reading,	15,673 75	-	-	1,000 00	1,180 75	1,440 90	2,000 00	-	215 56	21,510 96
Sherborn,	2,961 00	1,105 00	187 15	150 00	248 46	11 25	-	100 03	20 90	3,678 79
Shirley,	2,666 13	32 25	98 00	214 23	246 74	49 75	1,577 25	-	-	5,360 00
Somerville,	203,750 82	-	1,773 38	2,933 33	13,742 73	1,072 76	46,620 92	4,000 00	16,506 77	290,400 41
Stoneham,	17,727 78	-	125 00	1,000 00	1,235 38	830 91	-	1,297 18	602 54	22,818 79
Stow,	1,350 00	-	-	100 00	183 60	30 00	-	87 48	-	1,820 53
Sudbury,	5,700 00	1,643 25	119 66	-	532 37	110 89	4,019 12	-	76 14	6,539 06
Tewksbury,	7,038 26	549 70	150 00	420 00	506 51	423 23	-	-	86 03	12,643 15
Townsend,	5,000 00	361 55	-	450 00	432 64	-	-	-	204 06	6,086 70
Tyngsborough,	2,900 54	865 00	-	105 00	162 50	85 77	-	-	6 65	3,260 46
Walden,	28,633 84	-	-	1,500 00	2,244 59	1,692 84	8,000 00	162 00	882 22	43,115 49
Waltham,	64,969 91	1,098 75	432 00	2,300 00	2,750 00	1,518 00	-	17,378 97	4,517 82	93,866 70
Watertown,	34,250 00	1,254 30	300 00	1,900 00	2,952 21	100 00	-	-	2,100 00	41,602 21
Wayland,	8,174 70	1,323 25	79 74	300 00	780 86	49 50	-	-	67 70	9,452 50
Westford,	6,786 00	-	90 81	348 21	743 36	5 00	-	-	138 38	8,111 76
Weston,	10,375 85	2,874 75	450 00	-	579 54	302 14	643 02	805 62	256 38	13,412 55
Wilmington,	4,550 00	614 50	130 00	-	530 52	105 80	-	-	-	5,336 32
Winchester,	24,236 16	522 00	-	1,080 00	2,185 19	1,549 48	296 57	2,553 08	715 06	32,615 54
Woburn,	46,817 32	86 00	127 60	2,000 00	3,306 49	825 90	-	2,787 43	-	55,864 74
Totals,	\$1,796,170 92	\$32,012 85	\$12,058 07	\$47,662 55	\$137,853 92	\$83,489 08	\$506,712 42	\$92,242 93	\$88,682 49	\$2,865,372 38

MIDDLESEX COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for public schools.	Amount of local funds, the income of which can be appropriated only for the support of schools and academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1898.	How much of said fund was used for apparatus and books of reference.
					No. of academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of private schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Acton,	\$170 00	\$20,757 75	\$1,277 00	\$210 24	2	150		1	57	\$1,902 00	\$281 29	-
Arlington,	-	-	-	-	-	-	-	-	-	-	481 29	-
Ashby,	-	-	-	-	-	-	-	-	-	-	245 02	-
Ashtand,	-	-	-	-	-	-	-	-	-	-	245 02	-
Ayer,	-	-	-	192 38	-	-	-	1	13	400 00	345 02	-
Bedford,	50 00	-	-	-	-	-	-	-	-	-	-	-
Belmont,	5,939 00	-	-	-	-	-	-	1	14	2,400 00	281 29	-
Billerica,	-	-	-	237 47	-	-	-	1	40	16,000 00	481 29	-
Boxborough,	-	-	-	-	-	-	-	-	-	-	345 02	-
Burlington,	-	-	-	100 22	-	-	-	-	2,512	46,850 00	300 00	\$65 35
Cambridge,	-	10,000 00	702 52	1,739 50	-	-	-	-	-	-	231 29	-
Carlisle,	-	500 00	30 00	-	-	-	-	-	30	4,000 00	-	-
Chelmsford,	-	6,300 00	356 36	-	-	-	-	3	-	-	341 71	-
Concord,	-	3,000 00	80 60	335 81	-	-	-	-	-	-	541 71	-
Dracut,	-	-	-	-	-	-	-	-	-	-	-	-
Dunstable,	-	-	-	-	-	-	-	-	45	2,200 00	-	-
Everett,	-	-	-	-	-	-	-	-	-	-	-	-
Frammingham,	-	1,258 94	75 54	1,172 12	-	-	-	-	-	-	-	-
Groton,	-	25,650 00	1,032 00	-	2	150	\$72,750 00	-	-	-	231 28	27 75
Holliston,	-	-	-	-	-	-	-	-	-	-	245 02	-
Hopkinton,	-	-	-	-	-	-	-	-	-	-	281 28	-
Hudson,	25 00	5,836 00	350 16	274 74	-	-	-	1	40	1,200 00	231 28	-
Lexington,	-	-	-	-	-	-	-	3	40	900 00	-	-
Lincoln,	-	1,209 21	48 68	-	-	-	-	-	-	-	170 86	-
Littleton,	-	3,500 00	210 00	187 78	2	165	15,000 00	-	-	-	441 71	-
Lowell,	-	-	-	-	-	-	-	13	6,000	10,000 00	-	-

SCHOOL RETURNS.

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Malden,	-	-	-	-	-	1	220	-	2,500 00	5	1,298	2,100 00	-	-
Marlborough,	-	-	-	-	-	1	-	-	-	1	315	500 00	-	-
Maynard,	-	-	-	-	-	-	-	-	-	2	25	500 00	251	28
Medford,	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Melrose,	-	-	-	-	-	-	-	-	-	1	35	12,000 00	-	-
Natick,	-	-	-	-	-	-	-	-	-	-	-	13,300 00	-	-
Newton,	-	-	-	-	-	3	318	2,199 06	22,500 00	6	775	-	381	28
North Reading,	-	-	-	-	-	-	-	104 16	-	-	-	-	291	71
Pepperell,	-	-	-	-	-	-	-	-	-	-	-	-	-	10 00
Reading,	-	-	-	-	-	1*	-	111 44	-	1	2	5 00	381	28
Sherborn,	-	-	-	-	-	-	-	126 15	-	-	-	-	381	28
Shirley,	-	-	-	-	-	-	-	-	-	2	1,824	-	-	-
Somerville,	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stoneham,	-	-	-	-	-	-	-	-	-	-	-	-	345	03
Stow,	-	-	-	-	-	-	-	124 42	-	-	-	-	281	28
Sudbury,	-	-	-	-	-	-	-	218 30	-	-	-	-	281	28
Tewksbury,	-	-	-	-	-	-	-	150 00	-	-	-	-	281	28
Townsend,	-	-	-	-	-	-	-	-	-	-	-	-	281	28
Tyngsborough,	-	-	-	-	-	-	-	-	-	-	-	-	591	71
Wakefield,	-	-	-	-	-	-	-	109 77	-	-	-	-	-	-
Waltham,	-	-	-	-	-	1	59	-	2,700 00	3	37	650 00	-	-
Watertown,	-	-	-	-	-	-	-	-	-	1	400	2,400 00	-	-
Wayland,	5,500 00	-	-	-	-	-	-	98 21	-	-	-	-	341	71
Westford,	-	-	-	-	-	1	51	-	1,575 00	-	-	-	281	28
Weston,	-	-	-	-	-	-	-	-	-	1	8	400 00	-	-
Wilmington,	-	-	-	-	-	-	-	109 44	-	-	-	-	281	28
Winchester,	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woburn,	-	-	-	-	-	1	465	-	-	1	321	-	-	-
Totals,	\$11,684 00	\$181,344 46	\$9,072 82	\$7,561 44	12	1,429	\$117,025 00	64	13,831	\$117,707 00	\$10,073 06	\$236 44		

* United with high school.

NANTUCKET COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1897.	No. of public schools.	No. of persons in town May 1, 1897, between 5 and 15 years of age.	No. of persons in town May 1, 1897, between 8 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the public schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the public schools.
Nantucket,	3,016	\$3,366,242	10	403	225	363	—	60	175	329	311	.94	12

NORFOLK COUNTY.

Avon,	1,626	\$805,110	7	265	164	295	—	31	232	273	250	.91	7
Bellingham,	1,481	742,835	8	242	150	301	—	12	169	261	244	.93	8
Brainree,	5,311	4,453,825	27	938	548	1,178	60	62	605	987	908	.92	32
Brookline,	16,164	64,169,200	76	2,694	1,543	8,407	262	407	1,574	3,086	2,785	.90	112
Canton,	4,636	3,928,340	17	788	482	704	12	62	348	541	511	.94	21
Cohasset,	2,474	4,779,336	12	368	241	466	1	50	241	397	358	.90	16
Dedham,	6,188	8,006,278	35	1,166	835	1,492	4	192	831	1,267	1,181	.93	42
Dover,	668	820,532	4	108	77	123	1	13	77	93	78	.84	4
Foxborough,	3,219	1,959,487	15	530	314	647	4	61	346	508	470	.93	17
Franklin,	5,136	2,915,440	15	724	423	714	1	105	355	547	508	.93	18
Holbrook,	2,298	1,182,735	12	411	278	481	—	49	284	424	393	.93	14
Hyde Park,	11,826	9,328,235	45	2,190	1,499	2,063	3	300	1,220	1,614	1,492	.92	51
Medfield,	1,872	1,312,312	8	207	113	308	—	54	125	239	220	.92	8
Medway,	2,913	1,411,435	16	468	265	599	13	66	321	477	459	.96	17
Millis,	1,006	719,845	5	174	108	236	—	16	147	173	165	.95	6
Milton,	5,518	19,086,100	36	1,999	765	1,302	85	134	559	1,047	969	.92	44
Needham,	3,511	3,187,061	19	644	377	859	3	117	431	711	659	.93	21
Norfolk,	882	520,337	4	154	92	176	1	10	165	182	122	.92	5

SCHOOL RETURNS.

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Norwood,	4,574	3,686,175	19	926	569	1,020	-	94	579	963	914	.95	26
Quincy,	20,712	18,012,146	103	4,720	2,711	5,100	6	313	2,621	4,033	3,866	.96	115
Randolph,	.	.	.	.	.	3,694	1,882,300	17	588	407	723	4	83	391	654	608	.93	19
Sharon,	.	.	.	.	.	1,717	1,792,590	8	235	133	290	3	17	164	215	195	.91	9
Stoughton,	.	.	.	.	.	5,272	2,932,223	18	867	511	869	1	62	491	693	645	.93	23
Walpole,	.	.	.	.	.	2,994	2,389,038	14	537	301	627	-	48	375	505	461	.91	18
Wellesley,	.	.	.	.	.	4,229	7,399,800	18	669	444	718	11	118	365	623	579	.93	21
Westwood,	.	.	.	.	.	1,023	964,567	5	130	60	141	5	9	64	111	98	.89	5
Weymouth,	.	.	.	.	.	11,291	6,661,969	48	1,871	1,220	2,380	-	219	1,277	1,944	1,810	.93	53
Wrentham,	.	.	.	.	.	2,584	1,469,340	16	450	294	584	3	58	305	477	438	.92	18
Totals,	.	.	.	.	.	134,819	\$176,518,091	627	24,163	14,924	27,803	487	2,762	14,663	22,995	21,386	.93	750

NANTUCKET COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended normal schools.	No. of teachers who have graduated from normal schools.	A'v'g wages per month of male teachers in public schools.	A'v'g wages per month of female teachers in public schools.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept for the entire year.	No. of schools kept less than the time required by law.	HIGH SCHOOLS.				Salary of principal.
										No. of high schools.	No. of teachers.	No. of pupils.	How supported.	Length. Months. Days.
Nantucket, . . .	1	15	2	2	\$100 00	\$33 86	100	10	-	1	3	95	Taxation.	10
														\$1,000 00

NORFOLK COUNTY — CONTINUED.

Avon, . . .	1	7	6	5	\$91 64	\$37 71	63	9	-	1	2	46	Taxation.	9	\$850 00
Bellingham, . . .	-	17	6	2	-	38 62	72-10	8-11	-	1	1	26	Taxation.	9-15	440 00
Brainree, . . .	2	30	17	14	114 00	45 62	250-18	9-13	-	1	4	121	Taxation.	9-13	1,200 00
Brookline, . . .	6	106	41	34	181 66	64 27	752	9-18	-	1	14	335	Taxation.	9-18	3,500 00
Canton, . . .	2	20	5	4	115 00	48 00	170	10	-	1	3	65	Taxation.	10	1,500 00
Cohasset, . . .	2	16	5	5	110 00	42 92	118-4	9-17	-	1	3	83	Taxation.	10	1,700 00
Dedham, . . .	4	38	22	21	153 33	54 54	326	9-7	-	1	7	181	Taxation.	9-8	2,000 00
Dover, . . .	-	6	2	1	-	38 00	38	9-10	-	1	1	22	Taxation.	9-10	418 00
Foxborough, . . .	1	22	11	11	138 90	43 16	127-8	9-2	-	1	3	54	Taxation.	9-10	1,319 62
Franklin, . . .	3	21	9	8	52 00	43 31	142-9	9-8	-	1	4	80	Taxation.	9-13	800 00
Holbrook, . . .	1	19	6	6	120 00	39 96	113-2	9-8	-	1	3	84	Taxation.	9-15	1,200 00
Hyde Park, . . .	8	44	13	7	130 00	51 33	423	9-8	-	1	8	274	Taxation.	9-9	2,000 00
Medfield, . . .	2	8	5	4	100 00	46 82	69-11	8-14	-	1	1	47	Taxation.	8-11	900 00
Medway, . . .	2	21	9	9	100 00	41 75	145-11	9-1	-	1	2	77	Taxation.	10	1,000 00
Millis, . . .	1	7	6	4	78 18	32 50	42-7	8-4	-	1	2	22	Taxation.	8-14	684 00
Milton, . . .	4	50	20	19	135 00	61 35	351	9-15	-	1	7	145	Taxation.	9-16	2,100 00
Needham, . . .	2	26	3	2	99 00	45 77	181	9-10	-	1	3	115	Taxation.	10	1,200 00
Norfolk, . . .	2	3	-	-	44 00	37 33	41-5	10-6	-	1	1	12	Taxation.	8-5	396 00

SCHOOL RETURNS.

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	2	22	13	10	127 50	48 98	186-10	9-16	-	1	4	117	Taxation.	10	1,250 00
Norwood,	.	123	43	40	125 60	49 33	957-18	9-6	-	1	10	429	Taxation.	9-6	2,100 00
Quincy, .	.	16	2	2	115 79	42 73	161-10	9-10	-	1	3	100	Part tax.	9-10	1,300 00
Randolph,	.	8	1	1	80 00	35 25	77-17	9-14	-	1	1	30	Taxation.	9-15	800 00
Staron, .	.	24	6	4	130 00	43 00	163	9-10	-	1	3	71	Taxation.	10	1,300 00
Stoughton,	.	20	11	6	108 78	39 53	136-14	9-19	-	1	3	69	Taxation.	10	1,220 00
Walpole, .	.	20	9	7	200 00	55 97	162-15	9	-	1	3	99	Taxation.	9-15	2,000 00
Wellesley,	.	5	4	4	-	56 00	50	10	-	-	-	-	-	-	-
Westwood,	.	50	20	19	87 50	48 50	453-12	9-9	-	2	7	255	Taxation.	{ 9-10	1,400 00
Weymouth,	.	26	9	6	65 33	37 53	150-3	9-8	-	2	3	85	Taxation.	{ 9-10	1,300 00
Wrentham,	.													{ 9-10	760 00
Totals,	.	775	304	255	\$113 14	\$49 68	5,929-4	9-9	-	29	106	3,044	-	9-11	\$37,397 62

BOARD OF EDUCATION.

NANTUCKET COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for teachers, transportation, fuel, care of books and schoolrooms—for 1897-98.	Expense for transportation, included also in the preceding column.	Expense of supervision, including clerical aid, by school committee.	Salary of superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, census, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Nantucket,	\$5,091 89	-	\$100 00	-	\$388 34	\$212 53	-	\$765 70	\$278 35	\$6,886 81

NORFOLK COUNTY — CONTINUED.

Avon,	\$4,674 99	-	\$152 84	-	\$412 86	\$8 00	-	-	\$148 88	\$5,218 69
Bellingham,	3,822 82	\$517 00	25 00	\$250 00	239 55	60 00	\$500 00	-	888 72	5,046 25
Braintree,	17,240 80	723 00	115 00	1,200 00	1,608 29	505 80	6,497 93	\$890 79	2,664 34	22,449 40
Brookline,	104,182 49	-	1,632 00	4,000 00	6,648 63	5,816 36	-	5,250 24	1,600 00	136,691 99
Canton,	14,360 00	300 00	25 00	1,000 00	1,300 00	50 00	-	-	687 69	18,335 00
Cohasset,	11,571 56	2,030 25	-	700 00	641 84	236 22	-	-	1,262 31	13,837 31
Dedham,	30,694 95	-	-	2,100 00	2,531 68	876 27	58,000 00	940 96	-	96,406 17
Dover,	2,100 00	372 00	25 00	75 00	170 16	151 93	-	-	-	2,522 09
Foxborough,	9,200 00	700 00	150 00	375 00	897 23	125 46	-	-	565 36	11,313 05
Franklin,	11,311 37	1,219 50	50 00	1,000 00	687 64	491 76	-	1,215 24	495 57	15,251 58
Holbrook,	7,691 54	-	300 00	-	659 78	499 02	-	-	-	9,150 34
Hyde Park,	37,062 02	-	800 00	-	3,569 81	1,692 86	-	800 00	1,260 00	45,184 69
Medfield,	4,000 00	-	155 00	-	529 45	95 69	-	-	260 29	5,040 43
Medway,	7,700 00	477 70	225 00	425 00	610 91	319 27	-	694 35	127 65	10,102 18
Millis,	2,910 70	135 20	66 00	75 00	357 16	291 82	-	4,426 38	12 35	8,139 41
Milton,	40,835 08	2,577 50	50 00	2,500 00	3,686 30	3,894 64	-	1,218 79	1,893 33	54,008 14
Needham,	11,693 90	13 50	280 00	800 00	990 69	403 62	-	4,611 72	348 78	19,128 71
Norfolk,	2,235 17	681 86	133 00	-	214 31	83 80	-	600 00	125 29	3,391 57

SCHOOL RETURNS.

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Norwood, .	15,245 48	105 00	-	1,300 00	1,509 91	566 16	-	1,443 29	1,235 52	21,300 36
Quincy, .	81,742 77	899 10	-	2,500 00	7,037 95	2,218 10	18,346 89	-	2,587 98	114,433 69
Randolph, .	10,732 45	-	362 50	-	1,063 98	465 93	-	1,055 31	306 56	13,986 73
Sharon, .	3,750 00	-	25 00	180 00	409 62	100 00	1,000 00	-	300 00	5,764 62
Stoughton, .	12,237 64	-	312 48	410 00	1,170 99	763 09	-	325 08	499 27	15,718 55
Walpole, .	10,575 00	1,188 09	-	375 00	771 90	115 67	-	882 47	257 04	12,977 08
Wellesley, .	20,000 00	28 25	-	1,500 00	1,555 71	884 98	-	6,687 52	1,596 24	32,224 45
Westwood, .	5,151 81	800 00	120 00	-	107 20	36 83	-	41 25	486 35	5,943 44
Weymouth, .	38,309 23	1,815 00	283 00	1,800 00	2,628 47	730 57	50,000 00	-	1,576 44	95,327 71
Wrentham, .	8,456 00	456 00	150 00	480 00	685 45	22 50	-	-	762 22	10,526 17
Totals,	\$529,487 77	\$15,038 95	\$5,436 82	\$23,015 00	\$42,697 47	\$21,506 35	\$134,344 82	\$31,083 39	\$21,878 18	\$809,449 80

BOARD OF EDUCATION.

NANTUCKET COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for public schools.	Amount of local funds, the income of which can be appropriated only for the support of schools and academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1898.	How much of said fund was used for apparatus and books of reference.
					No. of academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of private schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Nantucket, . . .	-	\$37,000 00	\$2,000 00	\$235 80	1	50	\$300 00	-	-	-	\$50 00	-

NORFOLK COUNTY -- CONCLUDED.

[illegible]

SCHOOL RETURNS.

liii

Norwood, .	-	-	-	-	-	-	-	-	1	12	200 00	-	-	-
Quincy, .	-	374,396 70	18,354 53	-	-	-	-	-	4	225	2,500 00	281 28	-	-
Randolph, .	-	13,500 00	821 99	-	-	469 96	-	-	-	-	-	220 85	-	-
Sharon, .	-	2,360 00	141 60	-	-	153 00	-	-	-	-	-	50 00	-	-
Stoughton, .	-	-	-	-	-	-	-	-	1	250	1,300 00	195 03	-	10 00
Walpole, .	-	-	-	-	-	-	-	-	-	-	-	-	-	53 15
Wellesley, .	-	-	-	-	-	386 55	-	-	4	149	28,800 00	-	-	-
Westwood, .	-	-	-	-	-	-	-	21	-	-	-	-	-	-
Weymouth, .	-	-	-	-	-	826 18	-	-	-	-	-	-	-	-
Wrentham, .	-	1,818 26	105 58	-	-	456 00	-	-	-	-	-	281 28	-	8 50
Totals, .	\$2,483 40	\$491,834 96	\$29,022 34	\$6,113 27	4	353	\$30,884 00	25	2,106	\$39,300 00	\$4,631 30	\$121 65		

BOARD OF EDUCATION.

PLYMOUTH COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1897.	No. of public schools.	No. of persons in town May 1, 1897, between 5 and 15 years of age.	No. of persons in town May 1, 1897, between 16 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the public schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the public schools.
Abington,	4,207	\$2,250,417	18	674	409	861	11	56	459	693	654	.94	23
Bridgewater,	4,686	2,287,202	21	553	293	801	60	107	382	587	543	.92	27
Brockton,	33,165	25,641,372	139	6,114	3,433	6,610	—	890	3,600	5,261	5,261	.93	150
Carver,	1,016	825,305	7	165	105	192	2	17	115	169	153	.91	7
Duxbury,	1,966	1,565,158	10	245	198	293	1	28	221	255	235	.92	11
East Bridgewater,	2,894	1,421,346	13	456	269	533	—	64	315	456	429	.94	15
Haltax,	497	269,209	3	84	63	92	2	9	53	71	63	.89	3
Hanover,	2,031	1,220,300	9	279	174	375	—	52	202	318	302	.95	10
Hanson,	1,380	668,197	8	200	139	243	8	5	150	181	158	.87	8
Iltingham,	4,819	4,023,616	18	635	397	885	8	110	401	683	613	.90	21
Hull,	1,044	3,874,215	4	143	95	156	3	6	62	131	122	.93	4
Kingston,	1,746	1,398,690	9	308	194	385	11	40	239	312	286	.92	12
Lakeville,	870	486,189	6	138	69	144	2	5	69	112	99	.88	6
Marion,	759	972,170	6	160	87	146	—	2	87	125	118	.94	6
Marshfield,	1,760	1,335,900	11	246	138	310	3	28	161	242	225	.92	12
Mattapoisett,	1,032	1,507,388	5	133	89	174	2	16	108	130	117	.90	5
Middleborough,	6,689	3,811,955	29	987	607	1,232	—	120	628	968	901	.93	33
Norwell,	1,540	863,342	8	232	142	299	4	29	157	258	233	.90	11
Pembroke,	1,223	639,225	9	198	125	217	3	15	126	183	168	.92	8
Plymouth,	7,957	6,893,900	39	1,326	869	1,669	—	180	859	1,361	1,275	.94	42
Plymouth,	549	317,012	3	65	44	61	—	3	38	58	47	.81	3
Rochester,	1,021	492,090	6	151	93	169	—	5	97	144	118	.82	6
Rockland,	5,523	2,989,890	23	960	564	1,100	—	120	563	993	913	.92	27
Scituate,	2,246	2,421,205	11	400	235	419	—	45	243	351	325	.92	13
Wareham,	3,367	2,121,518	21	575	376	662	2	57	376	521	481	.92	22

SCHOOL RETURNS.

17

West Bridgewater,	.	.	.	1,747	1,010,679	9	263	161	308	3	2	182	241	220	.91	10
Whitman,	.	.	.	5,744	3,656,344	21	849	488	1,194	-	101	574	989	936	.95	31
Totals,	.	.	.	101,498	\$74,963,834	466	16,539	9,846	19,530	125	2,112	10,467	16,184	14,995	.93	526

SUFFOLK COUNTY.

Boston,	.	.	.	496,920	\$1,012,582,209	1,516	81,947	41,566	81,855	1,967	8,086	39,702	73,128	65,331	.89	1,763
Chelsea,	.	.	.	31,264	23,022,352	93	5,771	3,333	5,992	-	824	3,147	4,847	4,459	.92	123
Revere,	.	.	.	7,423	9,362,555	42	1,877	964	2,066	54	87	932	1,601	1,488	.93	44
Winthrop,	.	.	.	4,192	6,054,590	19	798	492	959	-	119	507	715	666	.93	22
Totals,	.	.	.	539,799	\$1,051,021,706	1,670	90,393	46,355	90,872	2,021	9,116	44,288	80,291	71,944	.90	1,952

BOARD OF EDUCATION.

PLYMOUTH COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.		No. of teachers who have attended normal schools.		No. of teachers who have graduated from normal schools.		A'ge wages per month of male teachers in public schools.		A'ge wages per month of female teachers in public schools.		Aggregate of months all the public schools have been kept during the school year.		Average No. of months the public schools have been kept for the entire year.		No. of schools kept less than the time required by law.		No. of high schools.		No. of teachers.		No. of pupils.		How supported.		Length.		Salary of principal.	
	4	2	28	21	19	\$97 50	\$47 54	157-16	8-14	—	1	1	4	4	90	Taxation.	9-15	\$1,240 00	1	1	5	85	Taxation.	8-14	9-15	10	1,560 00	
Abington,	2	31	85	27	25	156 00	63 25	172-18	8-4	—	1	1	17	17	558	Taxation.	10	2,000 00	1	1	1	19	Taxation.	5-10	5-10	8	525 00	
Bridgewater,	16	157	8	85	67	133 66	51 00	1,390	8-15	—	1	1	2	2	49	Part tax.	9-16	1,000 00	*	1	2	61	Taxation.	9-16	9-16	10	1,037 50	
Brockton,	2	9	4	4	2	48 00	34 40	61-5	8-4	—	1	1	1	1	2	—	—	—	1	2	63	Taxation.	10	10	10	900 00		
Carver,	3	9	3	7	4	103 75	42 45	109-12	8-8	—	1	1	2	2	61	Taxation.	9-16	1,037 50	1	2	63	Taxation.	10	10	10	900 00		
Duxbury,	1	4	11	3	2	44 28	33 99	25-7	8-9	—	1	1	2	2	61	Taxation.	9-16	1,037 50	1	2	63	Taxation.	10	10	10	900 00		
East Bridgewater,	1	4	11	3	2	90 00	36 00	81-15	9-19	—	1	1	2	2	61	Taxation.	9-16	1,037 50	1	2	63	Taxation.	10	10	10	900 00		
Hallowell,	1	4	11	3	2	90 00	36 00	81-15	9-19	—	1	1	2	2	61	Taxation.	9-16	1,037 50	1	2	63	Taxation.	10	10	10	900 00		
Hanson,	1	4	11	3	2	90 00	36 00	81-15	9-19	—	1	1	2	2	61	Taxation.	9-16	1,037 50	1	2	63	Taxation.	10	10	10	900 00		
Hingham,	2	20	8	8	5	120 00	44 44	167-10	9-2	—	1	1	4	4	137	Taxation.	10	1,600 00	1	4	137	Taxation.	10	10	10	1,600 00		
Hull,	2	2	2	4	4	80 00	48 00	40	10	—	1	1	2	2	83	Taxation.	10	1,600 00	1	2	83	Taxation.	10	10	10	1,000 00		
Kingston,	1	11	11	5	5	100 00	41 00	80-15	8-19	—	1	1	2	2	83	Taxation.	10	1,000 00	1	2	83	Taxation.	10	10	10	1,000 00		
Lakeville,	1	11	11	2	1	—	31 18	48	8	—	1	1	2	2	83	Taxation.	10	1,000 00	1	2	83	Taxation.	10	10	10	1,000 00		
Marion,	1	9	9	2	1	—	36 00	54	9	—	1	1	2	2	83	Taxation.	10	1,000 00	1	2	83	Taxation.	10	10	10	1,000 00		
Marshfield,	2	13	9	1	1	90 93	35 91	99	9	—	1	1	2	2	83	Taxation.	10	1,000 00	1	2	83	Taxation.	10	10	10	1,000 00		
Mattapoisett,	2	7	7	3	3	87 78	39 67	48-10	9-14	—	1	1	4	4	137	Taxation.	10	1,000 00	1	2	83	Taxation.	10	10	10	1,000 00		
Middleborough,	2	42	8	8	5	140 54	39 77	261-7	9-5	—	1	1	4	4	137	Taxation.	10	1,000 00	1	4	137	Taxation.	10	10	10	1,000 00		
Norwell,	1	11	11	1	—	94 73	33 80	85-10	9-10	—	1	1	3	3	58	Taxation.	9-10	900 00	1	3	58	Taxation.	9-10	9-10	8	412 50		
Pembroke,	1	9	9	1	—	60 00	31 89	61-8	8-1	—	1	1	6	6	151	Taxation.	9-15	1,500 00	1	6	151	Taxation.	9-15	9-15	8	412 50		
Plymouth,	4	53	14	14	11	100 00	41 64	376-9	9-13	—	1	1	2	2	83	Taxation.	10	1,000 00	1	2	83	Taxation.	10	10	10	1,000 00		
Plymouth,	2	4	4	4	—	34 67	36 50	27	9	—	1	1	2	2	83	Taxation.	10	1,000 00	1	2	83	Taxation.	10	10	10	1,000 00		
Rochester,	2	9	9	4	4	35 00	35 00	53	8-16	—	1	1	4	4	137	Taxation.	9-17	1,300 00	1	4	137	Taxation.	9-17	9-17	8	412 50		
Rockland,	4	35	7	7	7	71 75	43 66	226-11	9-17	—	1	1	2	2	83	Taxation.	10	1,000 00	1	2	83	Taxation.	10	10	10	1,000 00		
Scituate,	1	15	15	6	5	102 56	35 75	99-15	9-1	—	1	1	2	2	83	Taxation.	10	1,000 00	1	2	83	Taxation.	10	10	10	1,000 00		
Wareham,	2	22	22	4	2	88 02	44 06	169-10	8-1	—	1	1	2	2	83	Taxation.	10	1,000 00	1	2	83	Taxation.	10	10	10	1,000 00		

West Bridgewater, .	11	4	3	-	41 56	79-13	8-17	1†	6	17	Not by tax.	8-10
Whitman, . . .	3	12	12	92 00	47 65	196-5	9-7	1	6	226	Taxation.	9-15
Totals, . . .	63	241	194	\$99 74	\$44 67	4,329-13	9-5	20	76	2,082	-	9-5
												\$22,300 22

SUFFOLK COUNTY — CONTINUED.

Boston, . . .	236	1,632	1,125	1,125	\$214 30	15,539	10-5	12	190	5,288	Taxation.	123
Chelsea, . . .	7	118	42	39	182 78	930	10	1	17	450	Taxation.	10
Revere, . . .	2	42	23	21	111 11	378	9	-	-	-	-	9-10
Winthrop, . . .	2	20	11	10	146 15	180	9-10	1	3	87	Taxation.	9-10
Totals, . . .	247	1,812	1,201	1,195	\$212 05	17,027	10-3	14	210	5,825	-	10-3
												\$42,000 00
												2,500 00
												1,350 00
												\$45,850 00

* Partridge Academy.

† Howard Seminary.

PLYMOUTH COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools — wages of teachers, transportation, fuel, care of fires and schoolrooms—for 1897-98.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, censuses, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Abington,	\$14,480 94	\$486 00	\$257 00	\$625 00	\$996 84	—	—	\$6,646 70	\$1,254 20	\$24,260 68
Bridgewater,	13,743 53	560 12	—	625 00	644 37	\$281 01	—	—	372 28	15,666 19
Brockton,	103,651 14	25 00	500 00	2,500 00	9,404 56	3,220 51	—	2,500 00	10,000 00	137,776 21
Carver,	2,414 76	698 45	140 70	—	292 55	20 00	—	46 42	52 49	2,966 92
Duxbury,	4,000 00	—	116 90	250 00	526 02	25 00	—	—	319 30	5,237 22
East Bridgewater,	6,963 20	529 59	20 00	350 00	525 37	522 65	—	338 06	154 21	8,863 49
Halifax,	900 00	429 31	5 00	45 00	80 47	12 50	—	—	3 50	1,046 47
Hanover,	5,550 00	795 28	147 50	250 00	569 96	42 33	—	—	738 96	7,298 75
Hanson,	2,950 00	300 00	120 00	250 00	400 00	30 00	—	—	200 00	3,950 00
Hingham,	15,887 80	1,058 00	75 00	1,200 00	1,788 03	639 89	—	817 00	585 49	20,933 21
Hull,	5,000 00	276 25	115 00	160 00	223 02	70 15	—	276 46	88 77	5,928 40
Kingston,	5,619 60	374 00	—	250 00	433 31	142 29	—	—	730 18	7,175 38
Lakeville,	1,187 41	173 00	85 00	—	181 30	10 00	—	90 00	35 00	1,588 71
Marion,	2,000 00	—	69 25	—	242 25	10 00	—	—	269 53	2,691 03
Marshfield,	4,300 00	300 00	122 00	250 00	693 59	60 00	—	—	312 72	5,738 31
Mattapoisett,	2,825 47	339 00	173 75	150 00	131 32	—	—	—	80 57	3,361 11
Middleborough,	17,672 19	2,065 18	150 00	1,700 00	1,262 88	445 28	\$2,076 34	125 00	703 22	24,134 91
Norwell,	3,650 00	300 00	95 00	250 00	313 83	17 10	—	46 63	448 99	4,821 55
Pembroke,	2,180 00	79 92	136 79	—	138 27	30 00	—	147 21	52 79	2,685 06
Plymouth,	27,370 02	399 00	—	2,000 00	2,466 75	519 81	—	400 00	1,682 66	34,439 24
Plympton,	800 00	—	71 35	—	12 42	2 00	—	—	5 25	891 02
Rochester,	1,300 00	—	69 50	—	219 60	—	—	—	214 84	1,803 94
Rockland,	16,085 05	—	612 00	—	1,697 03	—	—	—	1,559 89	19,953 97
Schuette,	6,500 00	1,000 00	—	250 00	325 03	200 00	—	—	280 35	7,625 38
Wareham,	8,350 00	—	366 25	—	654 51	—	—	—	343 72	9,714 48

SCHOOL RETURNS.

lix

West Bridgewater, .	3,890 20	355 58	10 00	250 00	244 27	—	155 20	397 45	4,947 12
Whitman, . . .	17,251 54	—	225 00	1,000 00	1,575 70	983 74	423 06	393 27	33,588 85
Totals, . . .	\$302,512 85	\$10,593 68	\$3,772 99	\$12,355 00	\$26,043 25	\$7,284 26	\$12,011 74	\$21,254 63	\$399,047 60

SUFFOLK COUNTY — CONTINUED.

Boston, . . .	\$2,052 454 58	\$2,531 53	\$65,185 00	\$4,200 00	\$72,393 36	\$58,368 26	\$253,713 58	\$229,941 27	\$3,413,258 87
Chelsea, . . .	82,274 87	—	700 00	2,400 00	5,292 05	11,331 06	—	3,644 38	167,131 78
Revere, . . .	34,828 09	30 05	—	1,800 00	4,842 66	1,666 26	303 50	2,112 35	77,543 14
Winthrop, . . .	16,715 18	—	300 00	250 00	1,565 45	1,088 98	789 00	376 24	21,084 85
Totals, . . .	\$2,186,272 72	\$2,561 58	\$66,185 00	\$8,650 00	\$84,093 52	\$72,454 56	\$254,806 08	\$236,074 24	\$3,679,018 64

BOARD OF EDUCATION.

PLYMOUTH COUNTY — CONCLUDED.

[illegible]

SCHOOL RETURNS.

lxi

West Bridgewater, .	-	118,209 24	574 99	-	910 60	1	25	2,500 00	-	1	12	-	281 28	42 05
Whitman, .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals, .	\$499 00	\$236,660 96	\$6,245 75	\$6,648 52	4	183	\$2,989 00	9	756	\$8,472 00	\$6,202 66	\$103 55		

SUFFOLK COUNTY—CONCLUDED.

Boston, .	-	\$105,175 79	\$3,717 89	\$42,287 16	4	344	\$22,924 00	70	16,785	\$368,973 00	-	-		
Chelsea, .	-	-	-	5,752 50	-	-	-	4	1,055	800 00	-	-		
Revere, .	\$45 00	-	-	906 80	-	-	-	-	-	-	-	-		
Winthrop, .	-	-	-	361 35	-	-	-	-	-	-	-	-		
Totals, .	\$45 00	\$105,175 79	\$3,717 89	\$49,307 81	4	344	\$22,924 00	74	17,840	\$369,773 00	-	-		

* United with high school.

WORCESTER COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1897.	No. of public schools.	No. of persons in town May 1, 1897, between 5 and 15 years of age.	No. of persons in town 16 and 17 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the public schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the public schools.
Ashburnham,	2,148	\$1,042,290	13	367	236	424	2	63	236	368	340	.92	13
Athol,	7,364	4,018,345	24	1,070	627	1,162	195	195	667	934	876	.94	29
Barre,	1,598	557,627	9	313	215	338	9	9	227	274	214	.89	10
Barre,	2,278	1,440,885	10	325	187	364	42	42	191	294	276	.94	12
Berlin,	897	484,080	5	186	114	185	3	3	111	138	118	.92	5
Blackstone,	6,039	2,649,746	22	763	433	892	54	54	441	682	630	.92	26
Bolton,	797	473,951	3	126	71	140	1	13	75	118	106	.90	4
Boylston,	729	532,019	5	133	90	136	5	5	91	106	94	.89	6
Brookfield,	3,279	1,386,533	17	470	308	676	4	67	348	536	505	.94	20
Charlton,	1,877	903,650	14	297	196	362	15	15	224	285	254	.89	14
Clinton,	11,497	7,148,967	39	2,300	1,396	2,053	153	153	1,251	1,776	1,688	.96	49
Dana,	717	308,115	5	109	78	134	1	9	74	98	89	.91	5
Dana,	2,026	1,059,004	14	425	259	451	5	31	259	328	285	.87	14
Dudley,	3,203	1,044,175	14	553	337	529	40	40	247	351	333	.95	17
Fitchburg,	26,409	21,255,276	107	5,342	3,118	4,800	18	487	2,652	3,747	3,546	.95	121
Gardner,	9,182	5,023,759	35	1,700	1,037	1,802	9	158	1,032	1,546	1,434	.93	45
Grafton,	5,101	2,395,465	21	871	534	1,216	1	68	764	777	700	.90	26
Hardwick,	2,655	1,505,183	15	484	268	369	5	28	249	330	310	.93	16
Harvard,	1,162	918,371	9	149	89	174	3	2	97	140	127	.90	9
Holden,	2,602	1,188,339	17	460	339	546	52	52	369	482	452	.94	17
Hopedale,	1,377	3,237,580	6	232	143	229	1	38	150	235	225	.96	7
Hubbardston,	1,274	642,635	9	176	106	220	1	15	127	171	160	.93	9
Lancaster,	2,180	3,064,568	12	392	263	463	3	57	289	355	334	.94	14
Leicester,	3,239	2,194,774	15	545	326	675	45	45	384	532	496	.93	16
Leominster,	9,211	6,287,281	39	1,505	893	1,971	15	183	1,028	1,587	1,463	.92	50
Lunenburg,	1,237	764,346	8	198	129	260	3	23	135	191	180	.94	9
Mendon,	889	542,921	6	138	85	179	1	34	110	141	131	.93	7

SCHOOL RETURNS.

lxiii

Millford,	8,959	5,447,808	35	1,388	805	1,949	27	195	841	1,361	1,307	.96	41
Millbury,	5,222	2,262,954	22	8.1	606	907	3	60	487	755	714	.94	22
New Braintree,	642	409,904	5	80	55	90	1	9	56	68	63	.93	5
Northborough,	5,286	1,220,718	9	380	224	431	-	46	226	357	322	.90	9
Northbridge,	4,635	3,164,371	28	1,203	662	1,362	-	97	767	1,094	1,044	.95	33
North Brookfield,	4,605	1,822,545	16	969	672	786	-	91	663	617	617	.93	21
Oakham,	605	312,723	5	103	72	109	2	10	76	93	88	.95	5
Oxford,	2,390	1,265,276	13	387	238	500	10	43	290	385	360	.93	13
Paxton,	426	289,529	2	65	34	75	2	4	41	61	51	.84	2
Petersham,	952	630,518	6	115	81	127	1	11	81	102	95	.93	6
Phillipston,	460	268,648	4	55	39	82	3	8	44	65	58	.91	4
Princeton,	962	849,423	6	120	80	149	1	25	80	114	106	.92	8
Royalston,	890	474,935	7	125	94	158	1	9	100	113	102	.91	7
Rutland,	978	565,134	6	195	116	232	1	14	149	194	174	.90	11
Shrewsbury,	1,524	1,028,729	10	246	139	298	-	30	147	247	230	.93	11
Southborough,	2,223	1,488,398	9	315	188	347	-	29	192	294	268	.91	10
Spencer,	8,250	3,589,172	25	1,708	1,073	1,275	25	119	656	870	816	.94	33
Spencer,	7,614	3,650,960	37	1,724	732	1,451	18	138	672	1,217	1,157	.95	42
Sterling,	1,218	867,020	10	178	91	238	2	30	113	187	173	.93	12
Sturbridge,	1,910	917,602	13	326	205	407	-	6	254	278	262	.94	13
Sutton,	3,420	1,272,082	15	678	461	642	8	30	380	438	394	.89	16
Templeton,	2,915	1,270,171	15	560	318	623	6	52	354	492	455	.92	17
Upton,	2,150	1,013,815	8	290	168	309	-	16	205	284	261	.92	9
Uxbridge,	3,546	2,197,610	17	582	370	704	15	59	470	540	503	.93	19
Warren,	4,430	2,439,742	19	684	412	874	5	105	426	667	627	.94	21
Webster,	7,799	3,272,171	16	1,551	1,167	867	-	113	657	695	603	.95	24
Westborough,	5,235	2,812,593	15	706	406	892	7	120	466	745	711	.96	21
West Boylston,	2,968	884,715	15	437	290	658	2	64	347	506	472	.93	18
West Brookfield,	1,467	763,426	7	215	141	249	-	9	163	200	189	.94	8
Westminster,	1,315	650,639	10	210	138	264	-	26	139	214	196	.91	10
Winchendon,	4,490	2,408,914	22	843	497	979	14	98	546	819	779	.95	28
Worcester,	98,767	98,483,691	410	18,940	12,604	20,004	290	1,801	10,484	16,374	15,134	.92	484
Totals,	306,445	\$220,065,721	1,331	55,848	34,945	58,548	543	5,356	32,148	46,944	43,727	.93	1,552

WORCESTER COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended normal schools.	No. of teachers who have graduated from normal schools.	Average wages per month of male teachers in public schools.	Average wages per month of female teachers in public schools.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept for the entire year.	No. of schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of principal.
										No. of high schools.	No. of teachers.	No. of pupils.	How supported.	Months.	
Ashburnham, .	15	5	2	2	\$158 00	\$33 00	100	7-15	-	1	1	81	Taxation.	9-10	\$1,500 00
Attol, .	43	7	6	6	180 00	44 12	208-16	8-14	-	1	5	156	Taxation.	9-15	1,800 00
Auburn, .	14	7	6	6	32 00	39 10	73-10	8-3	-	1	1	45	Taxation.	10	1,000 00
Barre, .	19	12	9	9	100 00	37 72	89-7	8-2	-	1	2	45	Taxation.	10	1,000 00
Berlin, .	5	2	2	2	-	34 40	41	8-4	-	1	1	79	Taxation.	10	1,150 00
Blackstone, .	28	2	1	1	115 00	21 00	220	10	-	1	3	40	Part tax.	9-11	500 00
Bolton, .	6	3	3	3	-	42 00	27-5	9-2	-	1	2	54	Taxation.	10	1,100 00
Boylston, .	8	1	1	1	75 00	36 55	36-5	8-10	-	1	2	164	Taxation.	9-13	1,600 00
Brookfield, .	23	2	1	1	42 66	31 16	105	7-10	-	1	6	37	Taxation.	10	900 00
Charlton, .	14	2	2	2	120 00	46 09	365-4	9-14	-	1	1	38	Taxation.	10	1,800 00
Clinton, .	45	12	4	4	28 00	33 45	44-2	8-16	-	1	6	566	Taxation.	9-10	2,200 00
Dana, .	7	1	1	1	59 00	33 67	121	8-13	-	1	1	187	Taxation.	9-12	1,300 00
Douglas, .	13	-	-	-	105 00	37 20	127	9-1	-	1	4	108	Taxation.	9	1,450 00
Dudley, .	15	4	2	2	130 00	52 00	980	8-17	-	1	2	27	Taxation.	9-18	800 00
Fitchburg, .	117	54	39	39	180 00	42 74	309-10	9	-	1	2	49	Taxation.	9-15	1,000 00
Gardner, .	63	13	10	10	90 00	37 00	150-15	9	-	1	2	49	Taxation.	10	1,020 00
Grafton, .	34	7	7	7	161 11	40 28	189	8-5	-	1	1	12	Taxation.	8	400 00
Hardwick, .	21	9	8	8	80 80	38 56	133-2	9-13	-	1	3	66	Taxation.	10	1,700 00
Harvard, .	16	9	8	8	32 00	34 48	79-3	8-11	-	1	4	182	Taxation.	9-13	1,800 00
Holden, .	21	3	3	3	100 00	51 50	74	8-11	-	1	3	34	Taxation.	8-10	600 00
Hopedale, .	11	8	5	5	115 00	45 16	109-10	8-11	-	1	1	44	Taxation.	8-10	500 00
Hubbardston, .	16	7	5	5	60 00	41 12	129-10	8-11	-	1	1	34	Taxation.	8-10	500 00
Lancaster, .	19	11	8	8	90 00	43 24	355-4	8-11	-	1	1	34	Taxation.	8-10	500 00
Lecester, .	44	15	10	10	66 67	35 33	51-9	8-11	-	1	1	34	Taxation.	8-10	500 00
Leominster, .	6	2	2	2	55 56	39 93	51-9	8-11	-	1	1	34	Taxation.	8-10	500 00
Lunenburg, .	9	4	4	4	55 56	39 93	51-9	8-11	-	1	1	34	Taxation.	8-10	500 00
Mendon, .	9	3	3	3	55 56	39 93	51-9	8-11	-	1	1	34	Taxation.	8-10	500 00

SCHOOL RETURNS.

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	1	40	14	11	160 00	45 39	313-5	9-5	-	1	5	173	Taxation.	9-15	1,600 00
Millford, .	1	28	22	17	81 62	37 90	198	9-1	-	1	3	114	Taxation.	10	1,385 00
Millbury, .	5	8	5	5	-	33 00	40	8	-	1	3	-	-	-	-
New Brantree, .	-	12	9	5	111 11	41 50	81-5	9-5	-	1	1	39	Taxation.	9-5	1,000 00
Northborough, .	1	36	19	19	150 00	42 70	273-6	9-15	-	1	4	88	Taxation.	10	1,500 00
Northbridge, .	1	26	1	1	120 00	39 10	146-10	9-3	-	1	3	99	Taxation.	10	1,200 00
North Brookfield, .	1	7	1	1	-	30 00	37-10	7-10	-	1	2	64	Taxation.	10	1,000 00
Oakham, .	5	14	6	4	69 10	34 60	118	9-1	-	1	2	-	-	-	-
Oxford, .	-	3	8	7	-	39 00	15-12	7-16	-	-	-	-	-	-	-
Paxton, .	-	10	8	7	-	32 67	51	8-10	-	-	-	-	-	-	-
Petersham, .	-	5	5	4	-	35 00	28-7	7-1	-	-	-	-	-	-	-
Phillipston, .	-	13	6	6	32 00	37 75	41	6-16	-	1	2	34	Taxation.	9	600 00
Princeton, .	1	8	2	2	32 00	32 62	46-15	6-13	-	-	-	45	Taxation.	8-5	495 00
Royalston, .	3	11	2	1	49 00	33 25	45-15	7-17	-	1	2	34	Taxation.	9-5	800 00
Rutland, .	3	11	2	-	84 00	36 00	90-5	9	-	1	2	41	Taxation.	9-10	1,000 00
Shrewsbury, .	1	11	5	3	86 00	37 54	81-10	9-1	-	1	5	110	Taxation.	9-11	1,300 00
Southborough, .	3	41	8	6	95 00	49 54	219-2	9-3	-	1	4	96	Taxation.	10	1,300 00
Southbridge, .	3	45	8	3	81 00	40 69	335	9-10	-	1	4	51	Part tax.	9-16	800 00
Spencer, .	-	21	6	4	-	36 43	79	7-18	-	1	2	-	-	-	-
Sterling, .	-	16	1	1	-	34 16	104-5	8-8	-	-	2	34	Taxation.	9	600 00
Sturbridge, .	2	14	3	1	32 00	34 23	135	9	-	-	2	-	-	-	-
Sutton, .	1	20	1	1	83 66	36 00	130-4	8-3	-	2	3	87	Taxation.	{ 9	800 00
Templeton, .	1	15	12	-	105 55	38 25	81	9	-	1	2	77	Taxation.	{ 9	360 00
Upton, .	2	20	5	3	102 95	38 66	144-10	8-10	-	1	3	98	Taxation.	9	900 00
Uxbridge, .	2	31	13	12	77 08	46 31	171-10	9	-	1	3	81	Taxation.	9-10	1,500 00
Warren, .	3	24	11	11	85 00	43 74	149	9-6	-	1	5	76	Taxation.	9-10	1,050 00
Webster, .	3	23	9	6	110 00	46 25	139-11	8-13	-	1	5	97	Taxation.	10	800 00
Westborough, .	1	23	9	5	129 72	41 73	125-16	8-8	-	1	3	61	Taxation.	10	1,100 00
West Boylston, .	1	22	15	5	-	38 75	62	8-17	-	1	3	17	Taxation.	9-5	1,200 00
West Brookfield, .	-	12	7	4	24 00	32 92	68-18	7-7	-	1	1	39	Taxation.	9	500 00
Westminster, .	1	13	5	4	173 68	43 49	185-15	8-14	-	1	1	125	Not by tax.	8-1	487 00
Winchendon, .	2	33	10	9	-	58 89	4,100	10	-	1	9	-	-	9-10	2,000 00
Worcester, .	52	432	354	339	144 93	58 89	4,100	10	-	2	63	2,174	Taxation.	{ 10	3,000 00
Totals, .	159	1,669	780	650	\$111 12	\$45 64	12,224-13	9-3	-	48	225	6,036	-	9-9	\$56,797 00

* United with Nichols Academy.

† Leicester Academy.

WORCESTER COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools — wages of teachers, transportation, fuel, care of fires and schoolrooms — for 1897-98.	Expense for transportation, included also in the preceding column.	Expense of supervision, including clerical aid, by school committee.	Salary of superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, census, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Ashburnham,	\$4,900 00	\$118 50	\$150 00	—	\$492 24	\$77 68	—	\$168 67	\$61 23	\$5,681 15
Athol,	16,432 27	1,002 50	—	\$1,559 98	1,164 72	442 22	—	242 83	232 14	20,000 00
Auburn,	3,313 81	—	140 00	—	317 67	15 00	—	294 13	67 26	4,096 57
Barre,	6,350 00	562 00	97 75	286 77	474 07	—	—	—	188 12	7,690 84
Berlin,	1,200 00	—	70 00	120 96	133 64	—	—	—	150 26	1,694 86
Blackstone,	13,188 55	75 60	—	888 89	800 00	40 00	—	250 00	330 60	15,498 04
Bolton,	1,895 23	1,106 00	55 00	160 72	220 05	28 65	—	—	18 70	2,378 35
Boylston,	1,650 00	128 40	63 00	134 85	89 35	—	—	—	9 25	1,946 45
Brookfield,	8,219 35	127 96	140 00	375 00	598 13	20 00	—	262 24	353 87	9,908 59
Charlton,	3,607 70	—	212 31	—	212 31	—	—	—	213 70	4,245 71
Clinton,	29,464 27	—	—	1,800 00	2,727 75	1,640 59	—	2,865 51	—	38,498 12
Dana,	900 00	25 00	55 60	—	200 00	5 00	—	—	67 80	1,248 40
Douglas,	5,066 00	61 25	25 00	100 00	408 80	43 75	\$15,000 00	—	39 05	20,682 60
Dudley,	5,580 40	108 00	50 00	255 00	552 81	22 00	—	—	385 79	6,846 00
Fitchburg,	98,454 96	940 05	530 00	2,700 00	8,680 78	3,165 85	—	1,364 00	1,745 00	116,610 59
Gardner,	24,309 80	548 50	—	2,500 00	3,633 46	1,602 09	38,321 52	—	1,088 52	71,455 39
Granton,	14,394 54	2,074 15	238 13	937 50	1,492 45	300 90	—	—	1,313 56	18,677 08
Hardwick,	241 50	54 50	54 50	308 82	730 74	8 00	—	140 60	141 57	5,887 23
Harvard,	2,904 52	215 80	105 00	241 07	160 93	50 55	—	—	82 50	3,544 57
Holden,	7,546 63	247 25	75 00	375 00	323 86	48 00	—	830 00	291 54	9,490 03
Hopdale,	4,661 23	—	—	250 00	433 28	404 92	—	8 00	287 33	6,094 76
Hubbardston,	2,800 00	400 00	92 00	150 00	272 00	27 00	—	125 00	175 00	3,641 00
Lancaster,	8,467 22	573 80	300 00	—	524 04	112 46	10,230 66	160 28	224 93	20,019 59
Leicester,	10,370 15	285 50	85 20	375 00	499 62	58 25	—	408 82	215 44	12,012 48
Leominster,	27,741 60	730 00	100 00	1,900 00	4,618 05	591 70	45,000 00	912 02	859 10	81,722 47
Lanesburg,	2,618 84	95 80	113 69	283 33	309 52	50 00	—	—	126 46	3,501 84
Mendon,	2,166 54	357 00	16 75	250 00	203 49	51 91	—	72 47	110 41	2,871 57

SCHOOL RETURNS.

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Milford,	21,865 05	168 50	50 00	1,600 00	2,056 14	1,564 63	-	1,430 25	569 75	29,135 72
Milbury,	11,198 05	23 94	150 00	382 50	908 08	173 96	-	438 62	548 96	13,800 17
New Braintree,	1,676 00	88 00	96 00	-	138 00	59 00	-	82 00	34 00	2,085 00
Northborough,	5,863 11	888 00	100 00	217 74	648 53	182 95	2,240 00	-	142 64	9,394 97
Northbridge,	14,588 83	526 60	-	600 00	1,222 26	213 35	-	294 20	1,268 52	18,188 16
North Brookfield,	13,095 21	496 75	200 00	375 00	1,332 07	62 50	-	1,285 12	224 31	16,574 21
Oakham,	1,200 00	79 40	84 75	-	186 37	238 31	-	500 00	31 00	1,740 43
Oxford,	5,884 41	123 75	135 00	212 50	612 54	324 48	-	-	831 90	8,500 83
Paxton,	773 82	336 00	45 00	-	58 00	17 70	-	-	4 90	899 42
Petersham,	2,378 11	487 90	32 00	154 46	161 97	151 44	-	-	90 12	3,168 10
Phillipston,	1,100 00	213 00	45 00	75 00	98 65	61 23	-	-	27 53	1,407 41
Princeton,	3,000 00	396 00	78 00	300 00	435 83	154 16	-	150 00	14 65	4,132 64
Royalston,	1,200 00	185 50	45 00	150 00	160 87	-	-	-	85 70	1,641 57
Rutland,	2,218 76	639 75	125 00	-	271 74	4 75	-	-	186 27	2,806 52
Shrewsbury,	4,684 00	118 00	150 00	194 38	600 00	8 00	-	-	30 00	5,666 38
Southborough,	5,834 44	210 75	150 00	221 92	734 99	30 00	-	127 50	86 94	7,185 88
Southbridge,	14,904 21	-	-	1,400 00	1,208 63	971 17	27,143 36	104 42	711 53	46,443 39
Spencer,	23,069 26	384 50	-	1,300 00	1,500 96	987 47	4,561 88	350 00	260 00	32,029 57
Sterling,	3,500 00	158 00	55 00	290 00	235 36	45 18	-	-	52 46	4,178 00
Sturbridge,	4,745 64	1,139 35	34 35	320 00	357 01	25 00	-	-	178 82	5,660 82
Sutton,	5,353 65	303 65	150 00	-	652 12	242 21	-	50 00	290 36	6,738 34
Templeton,	6,300 00	822 00	85 00	375 00	627 58	60 60	-	-	478 09	7,926 27
Upton,	5,401 60	789 00	35 00	257 25	578 25	119 29	21,350 08	377 17	139 11	28,257 75
Uxbridge,	9,362 96	327 00	50 00	300 00	580 93	332 12	2,480 00	1,059 15	223 62	14,388 78
Warren,	11,599 16	668 78	35 00	600 00	1,139 22	405 22	-	309 57	188 25	14,276 42
Webster,	11,613 78	49 00	-	800 00	925 31	993 46	-	1,171 14	271 30	15,776 99
Westborough,	12,253 96	1,343 22	-	525 00	887 90	655 93	-	-	580 02	14,852 81
West Boylston,	8,951 22	41 00	200 00	450 00	600 50	128 33	-	-	183 05	10,516 10
West Brookfield,	3,362 89	500 00	50 00	240 00	293 91	25 00	-	-	200 00	4,171 80
Westminster,	3,193 86	497 50	84 35	300 00	257 76	111 12	-	-	31 19	3,978 28
Winchendon,	8,955 49	180 32	240 68	566 66	789 09	263 94	-	2,969 74	795 76	14,581 36
Worcester,	390,123 92	-	1,400 00	4,000 00	30,897 63	38,246 72	108,651 41	9,461 07	31,413 02	614,193 77
Totals,	\$932,158 00	\$22,366 72	\$6,673 75	\$32,160 30	\$81,471 96	\$55,668 64	\$274,978 91	\$28,264 68	\$48,955 90	\$1,460,332 14

WORCESTER COUNTY — CONCLUDED.

[illegible]

SCHOOL RETURNS.

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Millford,	-	-	-	-	-	-	240	2,000 00	-	195 03	-	-
Millbury,	-	-	-	-	-	-	-	-	-	481 28	-	19 00
New Braintree,	-	-	-	-	-	-	-	-	-	220 85	-	96 00
Northborough,	-	5,000 00	-	-	-	-	-	-	-	-	-	15 00
Northbridge,	-	-	-	-	-	-	8	280	-	245 03	-	-
Oakham,	-	-	-	-	-	-	-	-	-	481 28	-	-
Oxford,	-	1,200 00	48 00	-	-	-	-	-	-	281 28	-	-
Paxton,	-	-	-	-	-	-	-	-	-	420 85	-	-
Petersham,	-	735 00	15 54	-	-	-	-	-	-	381 28	-	26 30
Phillipston,	-	-	-	-	-	-	-	-	-	445 03	-	27 50
Princeton,	-	-	-	-	-	-	-	-	-	381 28	-	9 50
Royalston,	-	6,500 00	455 00	-	-	-	-	-	-	445 03	-	-
Rutland,	-	2,000 00	42 20	-	-	-	-	-	-	245 03	-	-
Shrewsbury,	-	-	-	-	-	-	2	40	-	341 71	-	-
Southborough,	-	-	-	-	-	1	125	75,000 00	-	-	-	-
Southbridge,	-	-	-	-	-	-	2	931	-	-	-	-
Spencer,	-	-	-	-	-	-	1	300	-	381 28	-	-
Sterling,	-	14,982 87	723 55	-	-	-	-	-	-	381 28	-	-
Sturbridge,	-	-	-	-	-	-	-	-	-	281 28	-	95 00
Sutton,	-	2,000 00	114 57	-	-	-	2	98	441 00	281 28	-	-
Templeton,	-	-	-	-	-	-	2	40	-	281 28	-	-
Upton,	-	-	-	-	-	-	-	-	-	195 03	-	-
Uxbridge,	-	-	-	-	-	-	-	-	-	231 28	-	57 82
Warren,	-	-	-	-	-	-	-	-	-	-	-	-
Webster,	-	-	-	-	-	-	3	686	-	195 03	-	-
Westborough,	-	-	-	-	-	-	2	11	160 00	341 71	-	73 78
West Boylston,	-	-	-	-	-	-	-	-	-	345 03	-	-
West Brookfield,	-	-	-	-	-	-	-	-	-	381 28	-	42 75
Westminster,	-	275,000 00	6,700 34	-	-	-	1	5	50 00	50 00	-	20 00
Winchendon,	-	2,258 89	68 55	-	-	-	10	1,983	6,960 00	-	-	-
Worcester,	-	-	-	-	-	2	269	21,975 00	-	-	-	-
Totals,	\$2,171 30	\$603,278 42	\$22,959 08	\$8,664 67	7	850	44	6,114	\$32,062 00	\$15,323 10	\$640 42	

RECAPITULATION.

COUNTIES.	Population—State Census, 1895.	Valuation—1897.	No. of persons in town May 1, 1897, between 5 and 14 years of age.	No. of persons in town May 1, 1897, between 8 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the public schools during the school year.	The per cent. of attendance based upon the average membership.
Barnstable,	27,654	\$22,274,593	4,268	2,793	5,034	17	642	2,748	4,303	4,001	.93
Berkshire,	86,292	52,091,969	16,680	10,267	18,157	137	1,435	9,755	14,351	13,228	.92
Bristol,	219,019	179,578,673	44,803	26,742	39,235	371	2,444	22,633	31,269	28,755	.92
Dukes,	4,238	4,146,335	547	362	667	—	94	366	530	472	.89
Essex,	330,393	253,643,612	56,168	32,370	53,541	728	5,742	28,808	46,069	42,913	.93
Franklin,	40,145	22,379,060	6,853	4,262	7,567	37	743	4,158	6,357	5,938	.93
Hampden,	152,938	132,517,091	28,687	17,936	27,536	502	2,484	14,643	21,868	20,265	.92
Hampshire,	54,710	31,358,318	9,532	5,867	10,356	117	968	5,782	8,463	7,881	.93
Middlesex,	499,217	478,402,809	86,468	51,899	96,932	2,567	10,742	49,732	78,817	73,331	.93
Nantucket,	3,016	3,366,242	403	225	363	—	60	175	329	311	.94
Norfolk,	134,319	176,518,091	24,163	14,924	27,803	487	2,702	14,663	22,995	21,386	.93
Plymouth,	101,498	74,963,834	16,639	9,846	19,530	125	2,112	10,467	16,184	14,995	.93
Suffolk,	539,799	1,051,021,706	1,670	46,355	90,872	2,021	9,116	44,288	80,291	71,944	.90
Worcester,	306,445	220,065,721	55,848	34,945	58,548	543	5,356	32,148	46,944	43,727	.93
Totals,	2,500,183	\$2,702,328,054	441,352	258,793	456,141	7,702	44,700	240,366	378,770	349,147	.92

SCHOOL RETURNS.

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RECAPITULATION — CONTINUED.

COUNTIES.	No. of teachers re- quired by the public schools.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended nor- mal schools.	No. of teachers who have graduated from normal schools.	Avg'e wages per month of male teachers in public schools.	Avg'e wages per month of female teachers in public schools.	Aggregate of months all the public schools have been kept dur- ing the school year.	Average No. of months the public schools have been kept for the entire year.	No. of schools kept less than the time required by law.	HIGH SCHOOLS.			Salary of principal.
											No. of high schools.	No. of teachers.	No. of pupils.	
Barnstable,	167	42	170	56	40	\$76 61	\$37 97	1,338-11	8-16	1	13	23	627	\$12,548 50
Berkshire,	521	51	559	145	122	79 84	37 71	3,971-17	8-12	1	12	44	1,269	14,990 86
Bristol,	968	75	994	234	182	113 78	57 79	7,142-12	9-4	1	12	67	1,993	16,018 75
Dukes,	26	7	24	8	6	42 61	35 87	183-8	7-19	1	3	5	86	1,890 00
Essex,	1,431	115	1,417	483	404	132 92	49 59	11,133-17	9-5	1	29	169	4,752	43,425 00
Franklin,	287	17	374	108	90	82 67	34 55	2,107-14	8-4	1	10	31	702	9,839 98
Hampden,	783	60	804	425	377	136 17	50 27	5,874-3	9-5	1	8	71	1,649	16,200 00
Hampshire,	325	39	360	101	70	78 86	33 80	2,502-1	8-13	1	12	34	850	11,571 00
Middlesex,	2,378	211	2,455	999	838	146 89	55 50	18,185-12	9-4	1	50	320	9,123	75,388 65
Nantucket,	12	1	15	2	2	100 00	33 86	100	10	1	1	8	95	1,000 00
Norfolk,	750	87	775	304	255	113 14	49 68	5,929-4	9-9	1	29	106	3,044	37,397 62
Plymouth,	526	63	601	241	194	99 74	44 67	4,325-13	9-5	1	20	76	2,082	22,300 22
Suffolk,	1,952	247	1,812	1,201	1,195	212 05	65 65	17,027	10-3	1	14	210	5,825	45,850 00
Worcester,	1,562	159	1,669	780	650	111 12	45 64	12,224-13	9-3	1	48	225	6,036	56,797 00
Totals,	11,678	1,174	12,029	5,087	4,425	\$137 41	\$51 44	92,020-5	9-6	1	261	1,384	38,133	\$365,217 38

RECAPITULATION — CONTINUED.

COUNTIES.	Amount raised by taxes and expended for schools — wages of teachers, transportation, fuel, care of fires and schoolrooms for — 1897-98.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of superintendent or town's share of it.	Expense of books, stationery and school supplies.	G sundries (reports, censuses, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Barnstable,	\$82,547 60	\$7,121 62	\$1,778 93	\$5,262 48	\$7,307 61	\$2,266 45	\$4,350 35	\$574 53	\$5,135 52	\$109,223 37
Berkshire,	235,134 28	3,917 46	4,331 54	10,344 81	23,762 10	4,748 61	178,823 28	13,220 92	11,203 77	481,569 31
Bristol,	579,482 24	6,723 82	6,320 56	15,140 40	45,426 09	24,611 06	154,653 09	25,141 18	23,130 09	873,904 71
Dukes,	8,924 00	288 42	343 00	800 00	1,382 23	768 31	—	165 18	161 65	12,544 37
Essex,	904,046 90	6,147 78	8,328 66	23,990 99	68,603 76	27,180 88	108,980 03	37,944 48	50,488 92	1,229,564 62
Franklin,	102,325 53	5,655 50	1,922 25	5,590 24	10,604 16	3,661 55	—	2,192 34	4,123 95	130,420 02
Hampden,	491,945 49	4,778 80	4,507 04	16,507 74	50,390 59	27,042 14	451,478 71	46,782 67	23,461 23	1,115,115 61
Hampshire,	133,220 03	5,795 23	2,834 25	7,559 62	12,880 76	4,055 35	21,295 00	5,808 66	8,324 89	185,478 56
Middlesex,	1,796,170 92	32,012 85	12,058 07	47,662 55	137,853 92	83,959 08	606,712 42	92,242 93	88,682 49	2,865,372 38
Nantucket,	5,091 89	—	100 00	—	388 34	212 53	—	765 70	278 35	6,836 81
Norfolk,	529,487 77	15,038 95	5,436 82	23,015 00	42,697 47	21,506 35	134,344 82	31,083 39	21,878 18	809,449 80
Plymouth,	302,512 85	10,593 68	3,772 99	12,355 00	26,043 25	7,284 26	13,812 88	12,011 74	21,254 63	399,047 60
Suffolk,	2,186,272 72	2,561 58	66,185 00	8,650 00	84,093 52	72,454 56	770,482 52	251,806 08	236,074 24	3,679,018 64
Worcester,	932,158 00	22,366 72	6,673 75	32,160 30	81,471 96	55,668 64	274,978 91	28,264 68	48,955 90	1,460,332 14
Totals,	\$8,292,320 12	\$123,032 41	\$124,092 86	\$209,039 13	\$592,905 76	\$335,449 77	\$2,719,912 01	\$551,004 48	\$543,153 81	\$13,367,877 94

SCHOOL RETURNS.

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RECAPITULATION — CONCLUDED.

COUNTIES.	ACADEMIES AND PRIVATE SCHOOLS.					Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	Income of local funds.	Amount of local funds, the income of which can be appropriated only for the support of schools and academies.	Amount of voluntary contributions for public schools.	How much of said fund was used for apparatus and books of reference.
	No. of academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of private schools.	Whole No. attending for the year.					
Barnstable,	1	1	—	1	1	\$1,724 66	\$1,935 40	\$35,233 00	\$71,382 40	\$438 94
Berkshire,	3	203	—	13	1,733	2,182 16	915 62	59,140 15	325 00	468 90
Bristol,	1	—	—	41	9,056	7,804 24	13,219 50	260,475 00	107 00	74 66
Dukes,	5	749	\$13,047 45	51	9,213	357 52	—	—	189 23	76 89
Essex,	8	1,037	36,753 00	20	315	5,504 18	23,203 50	453,932 59	5 00	132 31
Franklin,	4	1,037	61,221 25	10	315	1,231 91	5,043 07	103,375 07	2,663 87	187 47
Hampden,	20	5,682	13,804 50	12	1,007	3,573 57	14,219 87	317,991 40	400 00	366 44
Hampshire,	64	13,831	8,620 50	74	17,840	2,888 23	6,119 83	113,660 46	11,684 00	146 75
Middlesex,	25	2,106	117,025 00	44	6,114	7,561 44	9,072 82	181,344 46	—	236 44
Nantucket,	9	756	300 00	9	756	2,000 00	2,000 00	37,000 00	2,483 40	—
Norfolk,	25	2,106	30,884 00	74	17,840	235 80	29,022 34	491,834 96	499 00	121 65
Plymouth,	9	756	2,989 00	44	6,114	6,113 27	6,245 75	236,660 96	45 00	103 55
Suffolk,	74	17,840	22,924 00	363	67,653	49,307 81	3,717 89	105,175 79	—	—
Worcester,	44	6,114	110,242 50	363	67,653	8,664 67	22,959 08	603,278 42	2,171 30	640 42
Totals,	55	5,817	\$417,711 20	363	67,653	\$103,797 98	\$137,674 67	\$2,999,102 26	\$91,955 20	\$2,994 42
			\$694,943 00							

EVENING SCHOOLS.

CITIES AND TOWNS.	No. of Schools.	ATTENDANCE.			Time. No of Evenings.	No. of Teachers.	Expense.
		Males.	Females.	Average.			
Adams,	9	165	227	157	39	11	\$740 05
Auburn,	1	12	5	11	60	1	137 20
Beverly,	1	45	-	12	39	2	166 50
Boston,	214	3,688	2,222	4,000	96	205	79,620 49
Brockton,	10	273	143	225	36	14	1,864 48
Brookline,	5	77	65	64	62	5	978 29
Cambridge,	30	988	436	562	50	48	4,420 50
Chatham,	1	19	-	12	22	1	65 00
Chelsea,	7	227	194	130	50	15	1,283 00
Chicopee,	18	513	*	404	40	31	1,892 23
Clinton,	4	142	53	67	72	9	572 50
Dudley,	2	64	40	66	31	4	203 05
Easton,	1	27	12	16	60	1	440 75
Everett,	5	98	52	96	65	7	935 63
Fall River,	51	2,528	1,204	2,118	47	138	11,972 54
Fitchburg,	3	504	*	150	73	28	2,946 14
Framingham,	1	98	63	81	47	6	1,195 67
Gardner,	4	111	3	63	45	16	572 90
Greenfield,	4	146	78	97	60	7	573 86
Haverhill,	14	373	172	220	60	29	2,645 17
Holyoke,	28	1,110	*	591	49	60	4,362 25
Hyde Park,	3	103	27	53	62	4	672 01
Lawrence,	33	948	354	845	74	58	6,151 03
Lowell,	88	2,865	1,115	1,898	67	152	23,368 70
Lynn,	16	385	305	250	37	27	2,042 77
Malden,	7	197	118	186	68	13	3,804 58
Marblehead,	1	45	55	100	65	6	373 00
Marlborough,	7	117	57	58	39	7	482 01
Medford,	5	110	75	80	50	6	930 58
Millbury,	1	20	-	12	50	1	100 00
Natick,	2	17	12	17	50	2	253 80
New Bedford,	30	1,602	950	971	39	66	3,597 14
Newburyport,	2	43	49	42	30	7	273 25
Newton,	2	172	73	71	34	8	808 14
North Adams,	12	286	111	305	42	22	1,600 00
North Attleborough,	1	39	3	10	36	2	126 00
Northampton,	7	91	41	91	52	11	1,040 61
Pittsfield,	6	261	82	97	78	6	1,194 05
Quincy,	7	200	48	94	49	9	1,515 94
Salem,	4	366	106	130	67	18	2,777 00
Somerville,	12	501	209	263	55	25	3,800 74
South Hadley,	2	51	36	29	40	4	268 65
Southbridge,	4	113	83	135	41	7	634 56
Spencer,	6	64	51	44	43	9	377 50
Springfield,	14	834	318	393	76	35	5,751 61
Taunton,	9	282	103	256	36	21	1,557 50
Waltham,	9	186	114	175	54	12	1,907 87
Webster,	8	170	81	131	50	8	513 77
West Boylston,	2	49	15	33	47	5	179 25
Westfield,	3	62	24	19	33	3	253 50
Woburn,	1	149	33	92	46	5	675 23
Worcester,	23	978	287	692	112	65	14,047 44
Totals,	740	22,514	9,904	16,714	2,725	1,262	\$198,666 43

* With males.

SCHOOL RETURNS.

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RETURNS OF SCHOOLS IN STATE INSTITUTIONS FOR THE SCHOOL YEAR 1897-98.

STATE INSTITUTIONS.	No. of schools in the institution.	No. of different scholars of all ages during the year.	Average attendance during the year.	No. under 5 years of age attending school.	No. over 15 years of age attending school.	No. between 5 and 15 years of age remaining in the institution July 31, 1898.	NO. OF TEACHERS DURING THE YEAR.		WAGES OF TEACHERS PER MONTH.		Length of each school in months.
							Males.	Females.	Males.	Females.	
State Industrial School at Lancaster, . . .	6	289	159	-	121	23	-	6	-	\$25 00*	12
Lyman School for Boys at Westborough, . . .	9	454	278	-	164	110	2	12	\$70 00 to \$100 00	\$60 00 to \$110 00	10

* And home.

GRADUATED TABLES—FIRST SERIES.

The following Table shows the sums appropriated by the several cities and towns in the State for the education of each child between five and fifteen years of age. The income of the surplus revenue and of other funds held in a similar way, when appropriated to schools, is added to the sum raised by taxes; and these sums constitute the amount reckoned as appropriations. The income of such school funds as were given and are held on the express condition that their income shall be appropriated to schools is not included. Such an appropriation of their income, being necessary to retaining the funds, is no evidence of the liberality of those holding the trust. But if a town appropriates the income of any fund to its public schools, which may be so appropriated or not, at the option of the voters, or when the town has a legal right to use such income in defraying its ordinary expenses, then such appropriation is as really a contribution to common schools as an equal sum raised by taxes. On this account the surplus revenue and sometimes other funds are to be distinguished from local school funds as generally held. The income of the one *may* be appropriated to schools, or not, at the pleasure of the town; the income of the other *must* be appropriated to schools by the condition of the donation. Funds of the latter kind are usually donations made to furnish means of education in addition to those provided by a reasonable taxation. Committees are expected, in their annual returns, to make this distinction in relation to school funds.

Voluntary contributions are not included in the amount which is divided in order to ascertain the sum appropriated to each child. In many towns such contributions, however liberal, are not permanent, and cannot be relied upon as a stated provision. They are often raised and applied to favor particular schools, or classes of scholars, and not to benefit equally all that attend the public schools. Besides, the value of board and fuel gratuitously furnished is determined by the mere estimate of individuals, and is therefore uncertain; while the amount raised by taxes, being in money, has a fixed and definite value, and is a matter of record. Still the contributions voluntarily made are exhibited in a separate column of the Table, as necessary to a complete statement of the provision made by the towns for the education of their children.

The Table exhibits the rank of each city or town in the State, in respect to its liberality in the appropriation of money to its schools, as compared with other cities and towns for the year 1897-98, also its rank in a similar scale for 1896-97. It presents the sum appropriated to each child between five and fifteen.

GRADUATED TABLES — (FOR THE STATE) — FIRST SERIES.

Table showing the Comparative Amount of Money appropriated by the different Towns in the State for the Education of each Child in the Town between the Ages of 5 and 15 Years.

For 1896-97.	For 1897-98.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children between 5 and 15 years of age.	Amount contributed for board and fuel.
2	1	Weston, .	\$50 61.3	\$10,375 85	-	\$10,375 85	205	-
5	2	Nahant, .	40 64.9	4,430 83	-	4,430 83	109	-
-	3	Westwood, .	39 62.9	5,151 81	-	5,151 81	130	-
4	4	Brookline, .	38 67.2	104,182 49	-	104,182 49	2,694	\$1,728 00
8	5	Stadbury, .	37 93.7	5,700 00	\$218 30	5,918 30	156	-
6	6	Milton, .	37 15.6	40,855 08	-	40,855 08	1,099	-
1	7	Hull, .	34 96.5	5,000 00	-	5,000 00	143	-
10	8	Falmouth, .	33 31.1	13,157 93	-	13,157 93	395	-
3	9	Tyngsborough, .	32 96.0	2,900 54	-	2,900 54	88	-
20	10	Lincoln, .	32 49.7	4,647 19	-	4,647 19	143	-
9	11	Collasset, .	32 42.6	11,571 56	361 23	11,932 79	368	-
19	12	Belmont, .	29 94.0	13,053 97	-	13,053 97	436	-
13	13	Wellesley, .	29 89.5	20,000 00	-	20,000 00	669	5,939 00
12	14	Newton, .	28 12.4	139,941 84	2,199 06	142,140 90	5,054	-
21	15	Medford, .	27 90.5	74,730 17	-	74,730 17	2,678	-
14	16	Lexington, .	27 74.4	15,065 28	-	15,065 28	543	-
40	17	Watertown, .	27 53.2	34,250 00	-	34,250 00	1,244	-
27	18	Arlington, .	27 44.8	29,287 28	-	29,287 28	1,067	-
16	19	Concord, .	27 38.7	19,088 81	-	19,088 81	697	-
23	20	Hingham, .	26 65.5	15,887 80	1,038 70	16,926 50	635	475 00
29	21	Manchester, .	26 37.5	7,728 01	-	7,728 01	293	-
18	22	Dedham, .	26 32.5	30,694 95	-	30,694 95	1,166	-

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children be- tween 5 and 15 years of age.	Amount contributed for board and fuel.
For 1896-97.	For 1897-98.							
31	23	Barnstable,	\$26 20.0	\$15,850 03	\$394 20	\$16,244 23	620	-
30	24	Bridgewater,	25 60.7	13,743 53	417 34	14,160 87	553	-
22	25	Boston,	25 56.2	2,032,454 58	42,287 16	2,094,741 74	81,947	-
28	26	Princeton,	25 00.0	3,000 00	-	3,000 00	120	-
11	27	Littleton,	24 92.8	4,424 00	187 78	4,611 78	185	-
37	28	Yarmouth,	24 25.7	4,900 00	-	4,900 00	202	-
15	29	Petersham,	23 84.4	2,578 11	164 00	2,742 11	115	-
17	30	Dunstable,	23 44.6	1,195 78	-	1,195 78	51	-
38	31	Shelburne,	23 43.8	5,247 29	96 70	5,343 99	228	-
45	32	Wellfleet,	23 07.6	3,000 00	-	3,000 00	130	-
61	33	Malden,	22 93.2	121,610 00	-	121,610 00	5,303	-
34	34	Springfield,	22 81.7	201,115 32	-	201,115 32	8,814	\$2,663 87
41	35	Longmeadow,	22 77.2	2,300 00	-	2,300 00	101	-
52	36	Melrose,	22 62.6	46,517 79	-	46,517 79	2,065	-
143	37	Tisbury,	22 49.4	2,500 00	64 35	2,564 35	114	32 00
69	38	New Braintree,	22 45.0	1,676 00	120 00	1,796 00	80	-
32	39	North Reading,	22 43.8	3,126 94	104 16	3,231 10	144	-
91	40	Cottage City,	22 40.4	3,450 00	134 73	3,584 73	160	-
55	41	Somerville,	22 35.8	203,750 52	-	203,750 52	9,113	-
62	42	Orleans,	21 82.5	3,884 94	-	3,884 94	178	-
33	43	Lancaster,	21 60.0	8,467 22	-	8,467 22	392	-
58	44	Bourne,	21 53.3	6,214 16	547 50	6,761 66	314	-
44	45	Abington,	21 48.5	14,480 94	-	14,480 94	674	-
49	46	Winthrop,	21 39.9	16,715 18	361 35	17,076 53	798	-
64	47	Whitman,	21 39.2	17,251 54	910 60	18,162 14	849	-
42	48	Holliston,	21 35.5	7,751 90	-	7,751 90	363	-
49	49	Mattapoisett,	21 35.5	2,825 47	-	2,825 47	133	24 00
72	50	Sandwich,	21 24.4	4,340 56	181 70	4,522 26	213	-
24	51	Winchester,	21 20.3	24,236 16	-	24,236 16	1,143	-
25	52	Sterling,	21 07.1	3,500 00	250 77	3,750 77	1,178	-
84	53	Frammingham,	21 02.6	37,095 67	1,172 12	38,267 79	1,820	-

SCHOOL RETURNS.

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65	Weymouth,	20 91.6	38,309 23	826 18	39,135 41	1,871
56	Hopkinton,	20 78.5	9,000 00	-	9,000 00	483
57	Cambridge,	20 72.8	296 768 26	1,739 50	298,507 76	14,401
200	Lenox,	20 68.9	10,800 00	-	10,800 00	522
58	Hanover,	20 66.5	5,550 00	215 70	5,765 70	279
59	Plymouth,	20 64.1	27,370 02	-	27,370 02	1,326
46	Merrimac,	20 63.9	7,260 63	149 04	7,409 67	359
20 70	Worcester,	20 59.7	390,123 92	-	390,123 92	18,940
61	Barre,	20 59.3	6,350 00	342 77	6,692 77	325
63	Easton,	20 55.4	16,557 30	729 30	17,286 60	841
115	West Boylston,	20 49.0	8,954 22	-	8,954 22	437
51	Ashfield,	20 46.1	2,250 00	82 59	2,332 59	114
59	Walpole,	20 41.2	10,575 00	386 55	10,961 55	537
66	Dalton,	20 28.4	11,400 00	-	11,400 00	562
68	Hopedale,	20 09.1	4,661 23	-	4,661 23	232
191	Phillipston,	20 00.0	1,100 00	-	1,100 00	55
128	Leicester,	19 89.8	10,370 15	474 61	10,844 76	545
71	Upton,	19 88.9	5,401 60	366 33	5,767 93	290
63	Acton,	19 84.7	4,950 00	210 24	5,160 24	260
77	Wrentham,	19 80.4	8,456 00	456 00	8,912 00	450
47	Sunderland,	19 79.1	1,900 00	-	1,900 00	96
114	Greenfield,	19 75.4	23,646 14	-	23,646 14	1,197
76	Wayland,	19 60.4	8,174 70	98 21	8,272 91	422
129	Andover,	19 50.4	18,353 28	-	18,353 28	941
125	Foxborough,	19 49.6	9,200 00	1,132 98	10,332 98	530
48	Harvard,	19 49.3	2,904 52	-	2,904 52	149
26	Dover,	19 44.4	2,100 00	-	2,100 00	108
81	Groton,	19 37.8	7,325 00	-	7,325 00	378
82	Bedford,	19 36.4	3,989 12	-	3,989 12	206
81	Medfield,	19 32.3	4,000 00	-	4,000 00	207
79	Marblehead,	19 32.0	18,856 57	-	18,856 57	976
80	Brantree,	19 13.3	17,240 80	706 67	17,947 47	938
86	Amherst,	19 09.5	11,967 43	330 23	12,297 66	644
133	Danvers,	19 05.9	25,300 00	544 89	25,844 89	1,356
88	Randolph,	19 05.1	10,732 45	469 96	11,202 41	588
101	Shrewsbury,	19 04.0	4,684 00	-	4,684 00	246
101	Revere,	19 03.8	34,828 09	906 80	35,734 89	1,877
214	Everett,	18 93.3	70,301 06	-	70,301 06	3,713
123	Canton,	18 88.9	14,360 00	525 02	14,885 02	788
95	Kingston,	18 84.1	5,619 60	183 71	5,803 31	308
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Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

	For 1896-97.	For 1897-98.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children between 5 and 15 years of age.	Amount contributed for board and fuel.
104		94	Lynn,	\$18 72.2	\$192,783 10	-	\$192,783 10	10,297	-
90		95	Holbrook,	18 71.4	7,691 54	-	7,691 54	411	-
313		96	Marshfield,	68.9	4,300 00	\$297 55	4,597 55	246	-
184		97	Shutesbury,	18 63.9	942 05	64 50	1,006 55	54	-
135		98	Prescott,	18 60.4	800 00	-	800 00	43	-
101		99	West Springfield,	18 59.1	23,295 28	-	23,295 28	1,253	-
98		100	Haverhill,	18 56.2	108,014 52	-	108,014 52	5,819	-
138		101	North Attleborough,	18 54.0	22,285 21	-	22,285 21	1,202	-
96		102	Southborough,	18 52.2	5,834 44	-	5,834 44	315	-
103		103	Stockbridge,	18 46.7	8,125 79	-	8,125 79	440	-
104		104	Burlington,	18 43.5	1,540 58	100 22	1,640 80	89	-
137		105	Leominster,	18 43.2	27,741 60	-	27,741 60	1,505	-
112		106	Fitchburg,	18 43.0	98,454 96	-	98,454 96	5,342	-
121		107	Wakefield,	18 31.9	28,633 84	-	28,633 84	1,563	-
108		108	Stoneham,	18 27.6	17,727 78	-	17,727 78	970	-
223		109	Brookfield,	18 24.5	8,219 35	356 24	8,575 59	470	-
118		110	Brookton,	18 16.4	109,651 14	1,407 65	111,058 79	6,114	\$85 00
100		111	Needham,	18 15.8	11,693 90	-	11,693 90	644	-
92		112	Reading,	18 14.0	15,673 75	-	15,673 75	864	-
50		113	Topsfield,	18 11.9	2,282 32	139 50	2,391 82	132	-
161		114	Ashland,	18 08.2	5,931 00	-	5,931 00	328	-
106		115	Westfield,	18 04.0	35,034 93	-	35,034 93	1,942	-
209		116	Dighton,	18 00.2	4,100 00	220 49	4,320 49	240	-
109		117	Swampscott,	17 91.3	12,449 61	-	12,449 61	695	-
88		118	Westford,	17 81.1	6,786 00	-	6,786 00	381	-
110		119	Middleborough,	17 80.3	17,672 19	-	17,672 19	987	-
162		120	Townsend,	17 79.3	5,000 00	-	5,000 00	281	-
228		121	Barnardston,	17 76.8	2,105 76	97 58	2,203 34	124	-
93		122	Great Barrington,	17 70.0	12,883 10	427 95	13,311 05	752	70,000 00
117		123	Dracut,	17 66.6	8,144 10	335 81	8,479 91	480	-
174		124	Avon,	17 64.1	4,674 99	-	4,674 99	265	-

SCHOOL RETURNS.

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102	North Andover,	17 63.9	13,300 00	-	13,300 00	754
124	Monson, . . .	17 63.2	9,976 59	408 73	10,385 32	589
202	Lowell, . . .	17 54.7	253,239 09	-	253,239 09	14,432
74	Waltham, . . .	17 54.0	64,969 91	-	64,969 91	3,704
166	Duxbury, . . .	17 53.6	4,000 00	296 46	4,296 46	245
159	Warren, . . .	17 46.8	11,599 16	-	11,599 16	664
97	Dennis, . . .	17 39.8	6,500 00	129 01	6,629 01	381
160	Boxford, . . .	17 39.1	1,600 00	-	1,600 00	92
194	Bellingham, . . .	17 36.0	3,822 82	378 34	4,201 16	242
116	Westborough, . . .	17 35.6	12,253 96	-	12,253 96	706
156	Quincy, . . .	17 31.8	81,742 77	-	81,742 77	4,720
150	Blackstone, . . .	17 28.5	13,188 55	-	13,188 55	763
149	Deerfield, . . .	17 18.9	4,856 00	-	4,856 00	290
151	Easthampton, . . .	17 14.9	14,084 79	128 89	14,320 07	835
168	Holden, . . .	17 11.4	7,546 63	235 28	7,872 57	460
141	Mendon, . . .	17 08.1	2,166 54	325 94	2,367 28	138
122	Taunton, . . .	17 03.2	84,482 09	190 74	85,250 01	5,005
94	Natick, . . .	16 98.2	26,119 36	767 92	26,119 36	1,538
87	Blandford, . . .	16 97.5	2,050 00	-	2,050 00	128
216	Raynham, . . .	16 95.9	3,515 05	122 89	3,917 73	231
120	Swause, . . .	16 95.7	4,120 76	402 68	4,120 76	243
211	Northfield, . . .	16 94.4	3,634 77	-	3,634 77	226
148	Hyde Park, . . .	16 92.3	37,062 02	194 60	37,062 02	2,190
146	Chatham, . . .	16 87.9	4,252 71	-	4,252 71	258
240	Settuate, . . .	16 85.5	6,500 00	102 37	6,742 27	400
134	Norwell, . . .	16 81.5	3,650 00	242 27	3,901 12	232
7	Sherborn, . . .	16 78.9	2,961 00	251 12	3,072 44	183
108	Rockland, . . .	16 75.5	16,085 05	111 44	16,085 05	960
207	Fairhaven, . . .	16 75.5	9,091 29	-	9,516 85	568
107	Mills, . . .	16 72.8	2,910 70	425 56	2,910 70	174
83	Pepperell, . . .	16 61.6	9,920 04	-	9,920 04	597
130	Sharon, . . .	16 60.8	3,750 00	153 00	3,903 00	235
152	Grafton, . . .	16 52.6	14,394 54	-	14,394 54	871
163	Conway, . . .	16 49.4	3,200 00	-	3,200 00	194
264	Whately, . . .	16 49.4	1,600 00	-	1,600 00	97
105	Norwood, . . .	16 46.3	15,245 48	-	15,245 48	926
119	Medway, . . .	16 45.2	7,700 00	-	7,700 00	468
217	Franklin, . . .	16 41.6	11,311 37	574 40	11,885 77	724
179	Wilmington, . . .	16 40.6	4,550 00	109 44	4,659 44	284
126	Hudson, . . .	16 26.4	14,542 29	274 74	14,817 03	911
						200 00
						50 00
						20 40
						25 00

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children be- tween 5 and 15 years of age.	Amount contributed for board and fuel.
For 1896-97.	For 1897-98.							
145	165	Brewster, .	\$ 16 25.0	\$2,617 60	\$31 16	\$2,648 76	163	-
177	166	Salem, .	16 20.5	97,484 88	2,214 50	99,729 48	6,154	-
132	167	Palmer, .	16 17.1	18,093 28	504 19	18,597 47	1,150	-
344	168	Washington, .	16 12.1	1,000 00	64 01	1,064 01	66	-
169	169	East Bridgewater, .	16 11.3	6,953 20	394 40	7,347 60	456	-
111	170	Uxbridge, .	16 08.7	9,362 96	-	9,362 96	582	-
164	171	Northampton, .	16 06.4	44,581 55	1,106 85	45,688 40	2,844	-
178	172	Saugus, .	16 00.3	14,354 94	-	14,354 94	897	-
208	173	West Newbury, .	15 91.6	3,644 94	-	3,644 94	229	-
131	174	Hubbardston, .	15 90.9	2,800 00	-	2,800 00	176	-
183	175	Beverly, .	15 81.1	31,702 98	410 30	32,113 28	2,031	-
188	176	Attleborough, .	15 79.3	25,968 00	833 32	26,801 32	1,697	-
99	177	Georgetown, .	15 77.2	5,025 00	179 80	5,204 80	380	-
212	178	Milford, .	15 75.2	21,865 05	-	21,865 05	1,388	-
144	179	Ashby, .	15 65.2	1,800 00	-	1,800 00	115	-
158	180	Cheshire, .	15 64.2	2,800 00	-	2,800 00	179	-
222	181	West Brookfield, .	15 64.1	3,362 89	-	3,362 89	215	-
247	182	Carver, .	15 57.9	2,414 76	155 78	2,570 54	165	-
278	183	Tyringham, .	15 53.2	800 00	38 75	838 75	54	-
192	184	Ware, .	15 51.3	21,501 49	-	21,501 49	1,386	-
275	185	Hanson, .	15 50.6	2,950 00	151 30	3,101 30	200	-
127	186	Norfolk, .	15 44.2	2,235 17	142 94	2,378 11	154	-
259	187	Holyoke, .	15 43.4	136,099 79	1,856 28	137,956 07	8,938	-
170	188	Northborough, .	15 42.9	5,863 11	-	5,863 11	380	-
226	189	Sturbridge, .	15 39.6	4,745 64	273 77	5,019 41	326	-
147	190	Athol, .	15 35.7	16,432 27	-	16,432 27	1,070	-
140	191	Mansfield, .	15 35.2	9,683 97	448 91	10,132 88	660	-
192	192	Pittsfield, .	15 31.0	60,417 00	-	60,417 00	3,946	-
205	193	Chelsea, .	15 25.3	82,274 87	5,752 50	88,027 37	5,771	\$1,200 00
182	194	South Hadley, .	15 24.8	11,444 02	266 77	11,710 79	768	-
204	195	Ayer, .	15 22.5	5,700 00	192 38	5,892 38	387	-

SCHOOL RETURNS.

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172	Peabody, .	15 21.6	29,711 08	660 34	30,371 42	1,996
196	Westminster, .	15 20.8	3,193 86	-	3,193 86	210
197	Oxford, .	15 20.5	5,884 41	-	5,884 41	387
198	Tewksbury, .	15 20.1	7,038 26	-	7,038 26	463
199	Orange, .	15 08.5	14,376 73	-	14,376 73	953
200	Bolton, .	15 04.1	1,895 23	-	1,895 23	126
201	Norton, .	15 01.1	3,000 00	407 70	3,407 70	227
202	Williamstown, .	14 99.3	12,039 38	-	12,039 38	803
203	Gloucester, .	14 94.3	61,389 77	-	61,389 77	4,108
204	West Stockbridge, .	14 91.2	3,400 00	-	3,400 00	228
205	BillERICA, .	14 86.4	7,026 39	257 47	7,283 86	490
206	Ipswich, .	14 82.7	11,734 57	394 04	12,128 61	818
207	West Bridgewater, .	14 79.1	3,890 20	-	3,890 20	263
208	Lee, .	14 72.6	8,894 70	-	8,894 70	604
209	Westport, .	14 68.8	6,443 50	460 10	6,903 60	470
210	Woburn, .	14 68.0	46,817 32	-	46,817 32	3,189
211	Rowe, .	14 62.6	1,072 25	39 37	1,111 62	76
212	Freetown, .	14 61.9	2,000 00	280 71	2,280 71	156
213	Hinsdale, .	14 60.9	8,350 00	-	8,350 00	243
214	Wareham, .	14 60.1	3,350 00	-	3,350 00	575
215	Wareham, .	14 52.1	2,758 95	83 30	2,842 25	197
216	Granville, .	14 42.7	8,080 52	-	8,080 52	563
217	Chelmsford, .	14 35.2	24,309 80	-	24,309 80	1,700
218	Gardner, .	14 29.9	140,126 93	-	140,126 93	9,816
219	Lawrence, .	14 27.5	725 00	31 43	756 43	53
220	West Tisbury, .	14 27.2	8,105 92	-	8,105 92	570
221	Maynard, .	14 22.0	12,237 64	-	12,237 64	867
222	Stoughton, .	14 11.4	13,095 21	496 49	13,591 70	969
223	North Brookfield, .	14 02.6	3,178 66	176 10	3,354 76	240
224	Hamilton, .	13 97.8	1,600 00	-	1,600 00	115
225	Granby, .	13 91.3	10,628 43	-	10,628 43	769
226	Rockport, .	13 82.1	3,255 85	151 69	3,407 54	247
227	Newbury, .	13 79.5	6,669 29	119 07	6,788 36	495
228	Ludlow, .	13 71.3	16,287 59	-	16,287 59	1,188
229	Methuen, .	13 71.0	900 00	-	900 00	66
230	Eastham, .	13 63.6	1,200 00	203 99	1,403 99	103
231	Oakham, .	13 63.0	5,438 12	-	5,438 12	400
232	Groveland, .	13 59.5	23,089 26	331 55	23,400 81	1,724
233	Spencer, .	13 57.3	3,640 31	104 49	3,744 80	276
234	Buckland, .	13 56.8	1,800 00	-	1,800 00	133
235	Lanesborough, .	13 53.3				
172	Peabody, .	15 21.6	29,711 08	660 34	30,371 42	1,996
196	Westminster, .	15 20.8	3,193 86	-	3,193 86	210
197	Oxford, .	15 20.5	5,884 41	-	5,884 41	387
198	Tewksbury, .	15 20.1	7,038 26	-	7,038 26	463
199	Orange, .	15 08.5	14,376 73	-	14,376 73	953
200	Bolton, .	15 04.1	1,895 23	-	1,895 23	126
201	Norton, .	15 01.1	3,000 00	407 70	3,407 70	227
202	Williamstown, .	14 99.3	12,039 38	-	12,039 38	803
203	Gloucester, .	14 94.3	61,389 77	-	61,389 77	4,108
204	West Stockbridge, .	14 91.2	3,400 00	-	3,400 00	228
205	BillERICA, .	14 86.4	7,026 39	257 47	7,283 86	490
206	Ipswich, .	14 82.7	11,734 57	394 04	12,128 61	818
207	West Bridgewater, .	14 79.1	3,890 20	-	3,890 20	263
208	Lee, .	14 72.6	8,894 70	-	8,894 70	604
209	Westport, .	14 68.8	6,443 50	460 10	6,903 60	470
210	Woburn, .	14 68.0	46,817 32	-	46,817 32	3,189
211	Rowe, .	14 62.6	1,072 25	39 37	1,111 62	76
212	Freetown, .	14 61.9	2,000 00	280 71	2,280 71	156
213	Hinsdale, .	14 60.9	8,350 00	-	8,350 00	243
214	Wareham, .	14 60.1	3,350 00	-	3,350 00	575
215	Wareham, .	14 52.1	2,758 95	83 30	2,842 25	197
216	Granville, .	14 42.7	8,080 52	-	8,080 52	563
217	Chelmsford, .	14 35.2	24,309 80	-	24,309 80	1,700
218	Gardner, .	14 29.9	140,126 93	-	140,126 93	9,816
219	Lawrence, .	14 27.5	725 00	31 43	756 43	53
220	West Tisbury, .	14 27.2	8,105 92	-	8,105 92	570
221	Maynard, .	14 22.0	12,237 64	-	12,237 64	867
222	Stoughton, .	14 11.4	13,095 21	496 49	13,591 70	969
223	North Brookfield, .	14 02.6	3,178 66	176 10	3,354 76	240
224	Hamilton, .	13 97.8	1,600 00	-	1,600 00	115
225	Granby, .	13 91.3	10,628 43	-	10,628 43	769
226	Rockport, .	13 82.1	3,255 85	151 69	3,407 54	247
227	Newbury, .	13 79.5	6,669 29	119 07	6,788 36	495
228	Ludlow, .	13 71.3	16,287 59	-	16,287 59	1,188
229	Methuen, .	13 71.0	900 00	-	900 00	66
230	Eastham, .	13 63.6	1,200 00	203 99	1,403 99	103
231	Oakham, .	13 63.0	5,438 12	-	5,438 12	400
232	Groveland, .	13 59.5	23,089 26	331 55	23,400 81	1,724
233	Spencer, .	13 57.3	3,640 31	104 49	3,744 80	276
234	Buckland, .	13 56.8	1,800 00	-	1,800 00	133
235	Lanesborough, .	13 53.3				

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children be- tween 5 and 15 years of age.	Amount contributed for board and fuel.
For 1896-97.	For 1897-98.							
68	236	Mashpee, .	\$13 50.0	\$729 57	\$53 51	\$783 08	58	-
213	237	Marion, .	13 41.8	2,000 00	146 92	2,146 92	160	\$25 00
243	238	Ashburham, .	13 35.1	4,900 00	-	4,900 00	367	-
256	239	Monroe, .	13 33.3	600 00	-	600 00	45	-
232	240	Charlton, .	13 30.6	3,607 70	344 45	3,952 15	297	-
260	241	North Adams, .	13 26.5	52,166 00	698 44	52,864 44	3,985	-
250	242	Wilbraham, .	13 26.0	3,620 00	-	3,620 00	273	-
136	243	Lanesburg, .	13 22.6	2,618 84	-	2,618 84	198	20 00
323	244	Greenwich, .	13 22.4	978 58	-	978 58	74	-
267	245	Nantucket, .	13 22.0	5,091 89	235 80	5,327 69	403	-
203	246	Harwich, .	13 18.7	5,000 00	222 14	5,222 14	396	-
249	247	Adams, .	13 14.0	28,042 23	-	28,042 23	2,134	-
258	248	Montgomery, .	13 07.3	600 00	40 60	640 60	49	-
171	249	Essex, .	13 05.9	3,500 00	-	3,500 00	268	-
181	250	Montague, .	13 02.6	17,442 74	-	17,442 74	1,339	-
287	251	Edgartown, .	13 01.6	1,700 00	109 25	1,809 25	139	-
286	252	Millbury, .	13 00.5	11,198 05	-	11,198 05	861	-
242	253	Somerset, .	12 99.8	4,695 88	191 38	4,887 26	376	-
176	254	Hampden, .	12 98.8	1,300 00	71 47	1,371 47	106	-
231	255	Provincetown, .	12 85.8	9,500 00	-	9,500 00	739	-
230	256	Carlisle, .	12 82.0	1,000 00	-	1,000 00	78	-
244	257	Clinton, .	12 81.0	29,464 27	-	29,464 27	2,300	-
294	258	Charlton, .	12 78.1	2,000 00	57 89	2,057 89	161	-
237	259	Dartmouth, .	12 64.8	6,400 00	468 23	6,868 23	543	-
316	260	Shirley, .	12 63.4	2,666 13	126 15	2,792 28	221	-
319	261	Colrain, .	12 61.1	3,527 16	130 21	3,657 37	290	-
193	262	Northbridge, .	12 58.7	14,588 83	554 27	15,143 10	1,203	-
233	263	Marlborough, .	12 43.5	40,876 81	-	40,876 81	3,287	-
233	264	Paxton, .	12 42.4	773 82	33 78	807 60	65	-
233	265	Boylston, .	12 40.6	1,650 00	-	1,650 00	133	-
218	266	Plympton, .	12 30.7	800 00	-	800 00	65	-

SCHOOL RETURNS.

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Showing the Comparative Amount of Money appropriated by the different Towns in the State — Concluded.

For 1896-97.	For 1897-98.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children between 5 and 15 years of age.	Amount contributed for board and fuel.
299	306	Dudley,	\$10 54.9	\$5,580 40	\$253 57	\$5,833 97	553	\$1,325 00
330	307	Tolland,	10 52.6	600 00	—	600 00	57	—
305	308	Royalston,	10 52.0	1,200 00	115 01	1,315 01	125	—
324	309	Wenham,	10 35.6	1,400 00	184 57	1,584 57	153	—
284	310	Otis,	10 25.6	800 00	—	800 00	78	—
279	311	Agawam,	10 19.9	5,436 15	—	5,436 15	533	—
288	312	Lakeville,	10 11.6	1,187 41	208 70	1,396 11	138	—
340	313	Rochester,	10 08.2	1,300 00	222 47	1,522 47	151	—
329	314	Alford,	9 67.7	300 00	—	300 00	31	—
325	315	Hawley,	9 65.9	850 00	—	850 00	88	—
269	316	East Longmeadow,	9 61.7	3,218 37	147 58	3,365 95	350	—
289	317	Russell,	9 61.5	1,500 00	—	1,500 00	156	—
290	318	Windsor,	9 49.8	800 00	54 90	854 90	90	—
285	319	New Salem,	9 49.3	1,500 00	—	1,500 00	158	—
238	320	Williamsburg,	9 47.7	3,500 00	148 67	3,648 67	385	—
314	321	Holland,	9 37.5	225 00	—	225 00	24	—
309	322	Dana,	9 34.2	900 00	118 37	1,018 37	109	—
328	323	Huntington,	9 26.7	2,670 00	136 17	2,806 17	292	—
312	324	Belchertown,	9 22.1	4,500 00	—	4,500 00	488	—
342	325	Hancock,	8 92.8	750 00	—	750 00	84	—
327	326	Southwick,	8 92.4	1,650 00	143 75	1,793 75	201	—
326	327	Heath,	8 84.2	875 00	53 48	928 48	105	—
341	328	Peru,	8 82.5	500 00	38 35	538 35	61	—
331	329	Sandisfield,	8 75.6	1,100 00	108 44	1,208 44	138	5 00
333	330	Southbridge,	8 72.6	14,904 21	—	14,904 21	1,708	—
335	331	Seekonk,	8 59.6	2,000 00	355 38	2,355 38	274	—
332	332	Sutton,	8 57.7	5,353 65	—	5,353 65	678	—
337	333	Becket,	8 56.4	1,500 00	101 49	1,601 49	187	—
338	334	Savoy,	8 24.3	700 00	83 15	783 15	95	—
347	335	Egremont,	8 02.2	994 85	—	994 85	124	—

SCHOOL RETURNS.

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336	Chester,	7 96.2	2,150 00	-	2,150 00	270
337	Southampton,	7 93.1	1,600 00	18 11	1,618 11	204
338	Webster,	7 89.2	11,613 78	626 87	12,240 65	1,551
339	Worthington,	7 85.4	829 50	207 27	1,036 77	132
340	New Marlborough,	7 76.0	1,660 71	-	1,660 71	214
341	Monterey,	7 71.6	700 00	48 53	748 53	97
342	Leverett,	7 55.4	925 99	63 62	989 61	131
343	Plainfield,	7 09.0	500 00	38 90	538 90	76
344	Wendell,	6 99.9	783 34	56 57	839 91	120
345	Berlin,	6 89.7	1,200 00	82 96	1,282 96	186
346	New Ashford,	6 40.9	141 00	-	141 00	22
347	Cummington,	6 07.0	600 00	104 21	704 21	116
348	Goshen,	5 79.7	400 00	-	400 00	69
349	Pelham,	5 78.3	438 52	81 98	520 50	90
350	Gosnold,	5 55.5	100 00	-	100 00	18
351	Mt. Washington,	4 60.0	100 00	15 00	115 00	25
352	Clarksburg,	4 54.7	1,068 72	-	1,068 72	235
353	Gay Head,	3 00.0	99 00	-	99 00	33
5 00						

GRADUATED TABLES — (COUNTY TABLES) — FIRST SERIES.

Table showing the Comparative Amount of Money appropriated by the different Towns in each of the Counties in the State for the Education of each Child in the Town between the Ages of 5 and 15 Years.

BARNSTABLE COUNTY.

For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	Falmouth,	\$33 31.1	\$13,157 93	-	\$13,157 93	395	-
2	Barnstable,	26 20.0	15,850 03	\$394 20	16,244 23	620	-
3	Yarmouth,	24 25.7	4,900 00	-	4,900 00	202	-
4	Wellfleet,	23 07.6	3,000 00	-	3,000 00	130	-
5	Orleans,	21 82.5	3,894 94	-	3,894 94	178	-
6	Bourne,	21 53.3	6,214 16	547 50	6,761 66	314	-
7	Sandwich,	21 23.1	4,340 56	181 70	4,522 26	213	-
8	Dennis,	17 39.8	6,500 00	129 01	6,629 01	381	-
9	Chatham,	16 87.9	4,252 71	102 37	4,355 08	258	-
10	Brewster,	16 25.0	2,617 60	31 16	2,648 76	163	-
11	Eastham,	13 63.6	900 00	-	900 00	66	-
12	Mashpee,	13 50.0	729 57	53 51	783 08	58	-
13	Harwich,	13 18.7	5,000 00	222 14	5,222 14	396	-
14	Provincetown,	12 85.5	9,500 00	-	9,500 00	739	-
15	Truro,	11 37.4	1,700 00	63 07	1,763 07	155	-

BERKSHIRE COUNTY.

8	Lenox,	\$20 68.9	\$10,800 00	-	\$10,800 00	522	-
1	Dalton,	20 28.4	11,400 00	-	11,400 00	562	-
3	Stockbridge,	18 46.7	8,125 79	-	8,125 79	440	-
2	Great Barrington,	17 70.0	12,883 10	\$427 95	13,311 05	752	\$70,000 00

SCHOOL RETURNS.

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29	5	Washington, .	16 12.1	1,000 00	64 01	1,064 01	66	-
6	6	Cheshire, .	15 64.2	2,800 00	-	2,800 00	179	-
14	7	Tyringham, .	15 53.2	800 00	38 75	838 75	54	-
7	8	Pittsfield, .	15 31.0	60,417 00	-	60,417 00	3,946	1,200 00
5	9	Williamstown, .	14 99.3	12,039 38	-	12,039 38	803	-
4	10	West Stockbridge, .	14 91.2	3,400 00	-	3,400 00	228	-
15	11	Lee, .	14 72.6	8,894 70	-	8,894 70	604	177 40
12	12	Hinsdale, .	14 60.9	3,550 00	-	3,550 00	243	-
21	13	Lanesborough, .	13 53.3	1,800 00	-	1,800 00	133	-
11	14	North Adams, .	13 26.5	52,166 00	698 44	52,864 44	3,985	-
9	15	Adams, .	13 14.0	28,042 23	-	28,042 23	2,134	-
10	16	Sheffield, .	12 24.0	3,400 00	455 84	3,855 84	315	-
16	17	Florida, .	11 11.1	1,000 00	-	1,000 00	90	-
19	18	Richmond, .	10 82.0	1,500 00	47 31	1,547 31	143	-
17	19	Otis, .	10 25.6	800 00	-	800 00	78	-
22	20	Alford, .	9 67.7	300 00	-	300 00	31	-
18	21	Windsor, .	9 49.8	800 00	54 90	854 90	90	-
28	22	Hancock, .	8 92.8	750 00	-	750 00	84	-
27	23	Peru, .	8 82.5	500 00	38 35	538 35	61	-
23	24	Sandisfield, .	8 75.6	1,100 00	108 44	1,208 44	138	5 00
25	25	Becket, .	8 56.4	1,500 00	101 49	1,601 49	187	-
26	26	Savoy, .	8 24.3	700 00	83 15	783 15	95	-
30	27	Egremont, .	8 02.2	994 85	-	994 85	124	-
24	28	New Marlborough, .	7 76.0	1,660 71	-	1,660 71	214	-
13	29	Monterey, .	7 71.6	700 00	48 53	748 53	97	-
20	30	New Ashford, .	6 40.9	141 00	-	141 00	22	-
32	31	Mt. Washington, .	4 60.0	100 00	15 00	115 00	25	-
31	32	Clarksburg, .	4 54.7	1,068 72	-	1,068 72	235	-

BRISTOL COUNTY.

1	1	Easton, .	\$20 55.4	\$16,557 30	\$729 30	\$17,286 60	841	\$65 00
2	2	North Attleborough, .	18 54.0	22,285 21	-	22,285 21	1,202	-
10	3	Dighton, .	18 00.2	4,100 00	220 49	4,320 49	240	-
4	4	Taunton, .	17 03.2	84,482 09	767 92	85,250 01	5,005	-
11	5	Raynham, .	16 95.9	3,515 05	402 68	3,917 73	231	-

BRISTOL COUNTY — CONCLUDED.

	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children be- tween 5 and 15 years of age.	Amount contributed for board and fuel.
For 1896-97.							
3	Swansea, .	\$16 95.7	\$4,120 76	—	\$4,120 76	243	—
9	Fairhaven, .	16 75.5	9,091 29	\$425 56	9,516 85	568	\$200 00
8	Attleborough, .	15 79.3	25,968 00	833 32	26,801 32	1,697	—
5	Mansfield, .	15 35.2	9,683 97	448 91	10,132 88	660	—
14	Norton, .	15 01.1	3,000 00	407 70	3,407 70	227	—
19	Westport, .	14 68.8	6,443 50	460 10	6,903 60	470	60 00
12	Freetown, .	14 61.9	2,000 00	280 71	2,280 71	156	—
13	Somerset, .	12 99.8	4,695 88	191 38	4,887 26	376	—
14	Dartmouth, .	12 64.8	6,400 00	468 23	6,868 23	543	—
15	New Bedford, .	12 19.9	138,206 89	1,340 42	139,547 31	11,439	—
18	Berkley, .	11 76.4	1,600 00	—	1,600 00	136	—
17	Fall River, .	11 51.1	230,302 28	—	230,302 28	20,005	—
16	Rehoboth, .	11 36.0	3,200 00	265 00	3,465 00	305	—
7	Acushnet, .	11 07.1	1,830 02	207 14	2,037 16	184	—
20	Seekonk, .	8 59.6	2,000 00	355 38	2,355 38	274	—

DUKES COUNTY.

	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children be- tween 5 and 15 years of age.	Amount contributed for board and fuel.
For 1896-97.							
2	Tisbury, .	\$22 49.4	\$2,500 00	\$64 35	\$2,564 35	114	\$32 00
1	Cottage City, .	22 40.4	3,450 00	134 73	3,584 73	160	—
3	West Tisbury, .	14 27.2	725 00	31 43	756 43	53	75 00
5	Edgartown, .	13 01.6	1,700 00	109 25	1,809 25	139	—
4	Chilmark, .	12 25.8	350 00	17 76	367 76	30	—
6	Gosnold, .	5 55.5	100 00	—	100 00	18	—
7	Gay Head, .	3 00.0	99 00	—	99 00	33	—

SCHOOL RETURNS.

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ESSEX COUNTY.

1	Nahant,	\$40 64.9	\$4,430 83	-	\$4,430 83	109
2	Manchester,	26 37.5	7,728 01	-	7,728 01	293
3	Merrimac,	20 63.9	7,260 63	\$149 04	7,409 67	359
11	Andover,	19 50.4	18,353 28	-	18,353 28	941
6	Marblehead,	19 32.0	18,856 57	-	18,856 57	976
12	Danvers,	19 05.9	25,300 00	544 89	25,844 89	1,356
9	Lynn,	18 72.2	192,783 10	-	192,783 10	10,297
13	Haverhill,	18 56.2	108,014 52	-	108,014 52	5,819
4	Topsfield,	18 11.9	2,252 32	139 50	2,391 82	132
10	Swampscott,	17 11.3	12,449 61	-	12,449 61	695
11	North Andover,	17 63.9	13,300 00	-	13,300 00	754
12	Boxford,	17 39.1	1,600 00	-	1,600 00	92
14	Salem,	16 20.5	97,484 98	2,244 50	99,729 48	6,154
17	Saugus,	16 00.3	14,354 94	-	14,354 94	897
18	Saugus,	15 91.6	3,644 94	-	3,644 94	229
22	West Newbury,	15 81.1	31,702 98	-	32,113 28	2,031
16	Beverly,	15 77.2	5,025 00	410 30	5,204 80	330
17	Georgetown,	15 21.6	29,711 03	660 34	30,371 42	1,996
18	Peabody,	14 94.3	61,389 77	-	61,389 77	4,108
19	Gloucester,	14 82.7	11,734 57	394 04	12,128 61	818
30	Ipswich,	14 27.5	140,126 93	-	140,126 93	9,816
26	Lawrence,	14 27.5	3,178 66	176 10	3,354 76	240
22	Hamilton,	13 97.8	10,628 43	-	10,628 43	769
23	Rockport,	13 82.1	3,255 85	151 69	3,407 54	247
25	Newbury,	13 79.5	16,287 59	-	16,287 59	1,188
24	Methuen,	13 71.0	5,438 12	-	5,438 12	400
26	Groveland,	13 59.5	3,500 00	-	3,500 00	268
27	Essex,	13 05.9	1,700 00	140 52	1,840 52	152
29	Middleton,	12 10.8	2,255 81	-	2,255 81	196
28	Rowley,	11 50.9	1,825 00	-	1,825 00	159
30	Lynnfield,	11 47.7	25,997 64	-	25,997 64	2,305
31	Newburyport,	11 27.8	18,696 60	-	18,696 60	1,660
32	Amesbury,	11 26.3	2,379 14	128 89	2,508 03	229
33	Salisbury,	10 95.2	1,400 00	184 57	1,584 57	153
34	Wenham,	10 35.6				

BOARD OF EDUCATION.

FRANKLIN COUNTY.

For 1896-97.	For 1897-98.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	Shelburne,	\$23 43.8	\$5,247 29	\$96 70	\$5,343 99	228	-
3	2	Ashfield, .	20 46.1	2,250 00	82 59	2,332 59	114	-
2	3	Sunderland,	19 79.1	1,900 00	-	1,900 00	96	-
4	4	Greenfield,	19 75.4	23,616 14	-	23,616 14	1,197	-
21	5	Shutesbury,	18 63.9	942 05	64 50	1,006 55	54	-
10	6	Barnardston,	17 76.8	2,105 76	97 88	2,203 34	124	-
6	7	Deerfield, .	17 18.9	4,856 00	128 89	4,984 89	290	-
9	8	Northfield,	16 94.4	3,634 77	194 60	3,829 37	225	-
7	9	Conway, .	16 49.4	3,200 00	-	3,200 00	194	-
14	10	Whately, .	16 49.4	1,600 00	-	1,600 00	97	-
5	11	Orange, .	15 08.5	14,376 73	-	14,376 73	953	-
15	12	Rowe, .	14 62.6	1,072 25	39 37	1,111 62	76	-
18	13	Buckland,	13 56.8	3,640 31	104 49	3,744 80	276	-
13	14	Monroe, .	13 33.3	600 00	-	600 00	45	-
8	15	Montague,	13 02.6	17,442 74	-	17,442 74	1,339	-
17	16	Charlton,	12 78.1	2,000 00	57 89	2,057 89	161	-
22	17	Colrain, .	12 61.1	3,527 16	130 21	3,657 37	290	-
12	18	Leyden, .	11 29.0	700 00	-	700 00	62	-
11	19	Gill, .	11 15.3	1,450 00	-	1,450 00	130	-
19	20	Erving, .	10 97.1	2,100 00	61 42	2,161 42	197	-
20	21	Warwick,	10 78.4	1,100 00	-	1,100 00	102	-
20	22	Hawley, .	9 65.9	850 00	-	850 00	88	-
23	23	New Salem,	9 49.3	1,500 00	-	1,500 00	188	-
16	24	Heath, .	8 84.2	875 00	53 48	928 48	105	-
24	25	Leverett, .	7 55.4	925 99	63 62	989 61	131	-
26	26	Wendell, .	6 99.9	783 34	56 57	839 91	120	-
25								\$5 00

SCHOOL RETURNS.

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HAMPDEN COUNTY.

1	1	Springfield, .	\$22 81.7	\$201,115 32	-	\$201,115 32	8,814	\$2,663 87
2	2	Longmeadow, .	22 77.2	2,300 00	-	2,300 00	101	-
3	3	West Springfield,	18 59.1	23,295 28	-	23,295 28	1,253	-
4	4	Westfield, .	18 04.0	35,034 93	-	35,034 93	1,942	-
5	5	Monson, .	17 63.2	9,976 59	\$408 73	10,385 32	589	-
6	6	Blandford, .	16 97.5	2,050 00	122 89	2,172 89	128	-
7	7	Palmer, .	16 17.1	18,093 28	504 19	18,597 47	1,150	-
12	8	Holyoke, .	15 43.4	136,099 79	1,856 28	137,956 07	8,938	-
18	9	Granville, .	14 42.7	2,758 95	83 30	2,842 25	197	-
13	10	Ludlow, .	13 71.3	6,669 29	119 07	6,788 36	495	-
13	11	Wilbraham, .	13 26.0	3,620 00	-	3,620 00	273	-
11	12	Montgomery, .	13 07.3	600 00	40 60	640 60	49	-
13	13	Hamden, .	12 93.8	1,300 00	71 47	1,371 47	106	-
9	14	Brimfield, .	12 27.6	1,510 00	-	1,510 00	123	-
21	15	Chicopee, .	12 20.5	33,797 04	-	33,797 04	2,769	-
17	16	Wales, .	11 95.9	1,945 50	75 71	2,021 21	169	-
23	17	Tolland, .	10 52.6	600 00	-	600 00	57	-
15	18	Agawam, .	10 19.9	5,436 15	-	5,436 15	533	-
14	19	East Longmeadow, .	9 61.7	3,218 37	147 58	3,365 95	350	-
16	20	Russell, .	9 61.5	1,500 00	-	1,500 00	156	-
20	21	Holland, .	9 37.5	225 00	-	225 00	24	-
22	22	Southwick, .	8 92.4	1,650 00	143 75	1,793 75	201	-
19	23	Chester, .	7 96.2	2,150 00	-	2,150 00	270	-

HAMPSHIRE COUNTY.

1	1	Amherst, .	\$19 09.5	\$11,967 43	\$530 23	\$12,297 66	644	\$400 00
6	2	Prescott, .	18 60.4	800 00	-	800 00	43	-
2	3	Easthampton, .	17 14.9	14,084 79	235 28	14,320 07	835	-
3	4	Northampton, .	16 06.4	44,581 55	1,106 85	45,688 40	2,844	-
7	5	Ware, .	15 51.3	21,501 49	-	21,501 49	1,386	-
5	6	South Hadley, .	15 24.8	11,444 02	266 77	11,710 79	768	-
4	7	Granby, .	13 91.3	1,600 00	-	1,600 00	115	-
19	8	Greenwich, .	13 22.4	978 58	-	978 58	74	-

HAMPSHIRE COUNTY — CONCLUDED.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children be- tween 5 and 15 years of age.	Amount contributed for board and fuel.
For 1886-97.	For 1897-98.							
13	9	Hadley,	\$12 27.6	\$3,474 15	-	\$3,474 15	283	-
8	10	Enfield,	12 20.3	2,575 00	-	2,575 00	211	-
14	11	Chesterfield,	12 06.5	925 00	\$52 34	977 34	81	-
12	12	Middlefield,	11 87.1	800 00	31 00	831 00	70	-
11	13	Hadfield,	11 40.6	2,550 00	130 45	2,680 45	235	-
17	14	Westhampton,	10 98.9	1,000 00	-	1,000 00	91	-
9	15	Williamsburg,	9 47.7	3,500 00	148 67	3,648 67	385	-
20	16	Huntington,	9 26.7	2,370 00	136 17	2,706 17	292	-
16	17	Belchertown,	9 22.1	4,500 00	-	4,500 00	488	-
21	18	Southampton,	7 93.1	1,600 00	18 11	1,618 11	204	-
18	19	Worthington,	7 85.4	829 50	207 27	1,036 77	132	-
22	20	Plainfield,	7 09.0	500 00	38 90	538 90	76	-
10	21	Cummington,	6 07.0	600 00	104 21	704 21	116	-
23	22	Goshen,	5 79.7	400 00	-	400 00	69	-
15	23	Pelham,	5 78.3	438 52	81 98	520 50	90	-

MIDDLESEX COUNTY.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children be- tween 5 and 15 years of age.	Amount contributed for board and fuel.
For 1886-97.	For 1897-98.							
1	1	Weston,	\$50 61.3	\$10,375 85	-	\$10,375 85	205	-
4	2	Sudbury,	37 93.7	5,700 00	\$218 30	5,918 30	156	-
2	3	Tyngsborough,	32 96.0	2,900 54	-	2,900 54	88	-
11	4	Lincoln,	32 49.7	4,647 19	-	4,647 19	143	-
10	5	Belmont,	29 94.0	13,053 97	-	13,053 97	436	\$5,939 00
6	6	Newton,	28 12.4	139,941 84	2,199 06	142,140 90	5,054	-
12	7	Medford,	27 90.5	74,730 17	-	74,730 17	2,678	-
7	8	Lexington,	27 74.4	15,065 28	-	15,065 28	543	-
18	9	Watertown,	27 53.2	34,250 00	-	34,250 00	1,244	-
14	10	Arlington,	27 44.8	28,287 28	-	29,287 28	1,067	-

SCHOOL RETURNS.

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8	Concord, . .	27 38.7	19,088 81	697
9	Littleton, . .	24 92.8	4,424 00	185
10	Dunstable, . .	23 44.6	1,195 78	51
11	Malden, . .	22 93.2	121,610 00	5,303
12	Melrose, . .	22 52.6	46,517 79	2,065
13	North Reading, . .	22 43.8	3,126 94	144
14	Somerville, . .	22 35.8	203,750 52	9,113
15	Holliston, . .	21 35.5	7,751 90	363
16	Winchester, . .	21 20.3	24,236 16	1,143
17	Framingham, . .	21 02.6	37,095 67	1,820
18	Hopkinton, . .	20 78.5	9,000 00	433
19	Cambridge, . .	20 72.8	296,768 26	14,401
20	Acton, . .	19 84.7	4,950 00	260
21	Wayland, . .	19 60.4	8,174 70	5,160 24
22	Groton, . .	19 37.8	7,325 00	8,272 91
23	Bedford, . .	19 36.4	3,989 12	7,325 00
24	Everett, . .	18 91.3	70,301 06	3,989 12
25	Burlington, . .	18 48.5	1,540 58	3,713
26	Wakefield, . .	18 31.9	28,633 84	89
27	Stonham, . .	18 27.6	17,727 78	1,563
28	Reading, . .	18 14.0	15,673 75	970
29	Ashland, . .	18 08.2	5,931 00	864
30	Westford, . .	17 81.1	6,786 00	328
31	Townsend, . .	17 79.3	5,000 00	381
32	Dracut, . .	17 65.6	8,479 91	281
33	Lowell, . .	17 54.7	253,239 09	480
34	Waltham, . .	17 54.0	64,969 91	14,432
35	Natick, . .	16 98.2	26,119 36	3,704
36	Sherborn, . .	16 78.9	3,072 44	1,538
37	Pepperell, . .	16 61.6	9,920 04	183
38	Wilmington, . .	16 40.6	4,659 44	597
39	Hudson, . .	16 26.4	14,817 03	284
40	Ayer, . .	15 65.2	1,800 00	911
41	Tewksbury, . .	15 22.5	5,892 38	115
42	Billerica, . .	15 20.1	7,038 26	387
43	Woburn, . .	14 86.4	7,283 86	463
44	Chelmsford, . .	14 68.0	46,817 32	490
45	Maynard, . .	14 35.2	8,080 52	3,189
46	Carlisle, . .	14 22.0	8,105 92	563
47		12 82.0	1,000 00	570
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MIDDLESEX COUNTY — CONCLUDED.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children be- tween 5 and 15 years of age.	Amount contributed for board and fuel.
For 1896-97.	For 1897-98.							
54	51	Shirley,	\$12 63.4	\$2,666 13	\$126 15	\$2,792 28	221	—
53	52	Marlborough,	12 43.5	40,876 81	—	40,876 81	3,287	—
46	53	Boxborough,	11 68.8	713 00	—	713 00	61	—
51	54	Stow,	11 51.8	1,350 00	124 42	1,474 42	128	—

NANTUCKET COUNTY.

—	—	Nantucket,	\$13 22.0	\$5,091 89	\$235 80	\$5,327 69	403	—
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NORFOLK COUNTY.

—	1	Westwood,	\$39 62.9	\$5,151 81	—	\$5,151 81	130	—
1	2	Brookline,	38 67.2	104,182 49	—	104,182 49	2,694	\$1,728 00
2	3	Milton,	37 15.6	40,835 08	—	40,835 08	1,099	—
3	4	Cohasset,	32 42.6	11,571 56	\$361 23	11,932 79	368	—
4	5	Wellesley,	29 89.5	20,000 00	—	20,000 00	669	—
5	6	Dedham,	26 32.5	30,694 95	—	30,694 95	1,166	—
6	7	Weymouth,	20 91.6	38,309 23	826 18	39,135 41	1,871	—
7	8	Walpole,	20 41.2	10,575 00	386 55	10,961 55	537	—
8	9	Wrentham,	19 80.4	8,456 00	456 00	8,912 00	450	—
9	10	Foxborough,	19 49.6	9,200 00	1,132 98	10,332 98	430	—
10	11	Dover,	19 44.4	2,100 00	—	2,100 00	108	—
11	12	Medfield,	19 32.3	4,000 00	—	4,000 00	207	—
12	13	Braintree,	19 13.3	17,240 80	706 67	17,947 47	938	—
13	14	Randolph,	19 03.1	10,732 45	469 96	11,202 41	588	—

SCHOOL RETURNS.

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13	15	Canton,	18 88.9	14,360 00	525 02	14,885 02	788	600 00
12	16	Holbrook,	18 71.4	7,691 54	-	7,691 54	411	-
14	17	Needham,	.	.	.	.	18 15.8	11,693 90	-	11,693 90	644	85 00
24	18	Avon,	.	.	.	.	17 64.1	4,674 99	-	4,674 99	265	-
25	19	Bellingham,	.	.	.	.	17 36.0	3,822 82	378 34	3,822 82	242	-
23	20	Quincy,	.	.	.	.	17 31.8	81,742 77	-	81,742 77	4,720	-
22	21	Hyde Park,	.	.	.	.	16 92.3	37,062 02	-	37,062 02	2,190	-
16	22	Milks,	.	.	.	.	16 72.8	2,910 70	-	2,910 70	174	50 00
21	23	Sharon,	.	.	.	.	16 60.8	3,750 00	153 00	3,903 00	235	-
15	24	Norwood,	.	.	.	.	16 46.3	15,245 48	-	15,245 48	926	-
18	25	Medway,	.	.	.	.	16 45.2	7,700 00	-	7,700 00	468	-
26	26	Franklin,	.	.	.	.	16 41.6	11,885 77	574 40	11,885 77	724	20 40
20	27	Norfolk,	.	.	.	.	15 44.2	2,335 17	142 94	2,378 11	154	-
27	28	Stoughton,	.	.	.	.	14 11.4	12,237 64	-	12,237 64	867	-

PLYMOUTH COUNTY.

1	Hull,	\$34 96.5	\$5,000 00	-	\$5,000 00	143
2	Hingham,	26 65.5	15,887 80	\$1,038 70	16,926 50	635
3	Bridgewater,	25 60.7	13,743 53	417 34	14,160 87	553
5	Abington,	21 48.5	14,480 94	-	14,480 94	674
7	Whitman,	21 39.2	17,251 54	910 60	18,162 14	849
9	Mattapoisett,	21 24.4	2,825 47	-	2,825 47	133
7	Hanover,	20 66.5	5,550 00	215 70	5,765 70	279
8	Plymouth,	20 64.1	27,370 02	-	27,370 02	1,326
11	Kingston,	18 84.1	5,619 60	183 71	5,803 31	308
10	Marshfield,	18 68.9	4,300 00	297 55	4,597 55	246
14	Brockton,	18 16.4	109,651 14	1,407 65	111,058 79	6,114
12	Middleborough,	17 80.3	17,672 19	-	17,672 19	987
13	Duxbury,	17 53.6	4,000 00	296 46	4,296 46	245
22	Scuttate,	16 85.5	6,500 00	242 27	6,742 27	400
15	Norwell,	16 81.5	3,650 00	251 12	3,901 12	232
12	Rockland,	16 75.5	16,085 05	-	16,085 05	960
10	East Bridgewater,	16 11.3	6,953 20	394 40	7,347 60	456
23	Carver,	15 57.9	2,414 76	155 78	2,570 54	165
25	Hanson,	15 50.6	2,950 00	151 30	3,101 30	200
19	West Bridgewater,	14 79.1	3,890 20	-	3,890 00	263

PLYMOUTH COUNTY — CONCLUDED.

For 1896-97.	For 1897-98.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children between 5 and 15 years of age.	Amount contributed for board and fuel.
17	21	Wareham,	\$14 52.1	\$8,350 00	—	\$8,350 00	575	—
20	22	Marion,	13 41.8	2,000 00	\$146 92	2,146 92	160	—
21	23	Plympton,	12 30.7	800 00	—	800 00	65	—
24	24	Pembroke,	11 55.4	2,180 00	107 85	2,287 85	198	—
16	25	Halifax,	10 71.4	900 00	—	900 00	84	—
26	26	Lakeville,	10 11.6	1,187 41	208 70	1,396 11	138	—
27	27	Rochester,	10 08.2	1,300 00	222 47	1,522 47	151	—

SUFFOLK COUNTY.

1	1	Boston,	\$25 56.2	\$2,052,454 58	\$42,287 16	\$2,094,741 74	81,947	—
2	2	Winthrop,	21 39.9	16,715 18	361 35	17,076 53	798	—
4	3	Revere,	19 03.8	34,828 09	906 80	35,734 89	1,877	\$45 00
3	4	Chelsea,	15 25.3	82,274 87	5,752 50	88,027 37	5,771	—

WORCESTER COUNTY.

3	1	Princeton,	\$25 00.0	\$3,000 00	—	\$3,000 00	120	—
1	2	Peterham,	23 84.4	2,578 11	\$164 00	2,742 11	115	—
7	3	New Braintree,	22 45.0	1,676 00	120 00	1,796 00	80	—
4	4	Lancaster,	21 60.0	8,467 22	—	8,467 22	392	—
2	5	Sterling,	21 07.1	3,500 00	250 77	3,750 77	178	—
8	6	Worcester,	20 59.7	390,123 92	—	390,123 92	18,940	—
10	7	Barre,	20 59.3	6,350 00	342 77	6,692 77	325	—
14	8	West Boylston,	20 49.0	8,954 22	—	8,954 22	437	—

BOARD OF EDUCATION.

WORCESTER COUNTY — CONCLUDED.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children be- tween 5 and 15 years of age.	Amount contributed for board and fuel.
For 1896-97.	For 1897-98.							
47	49	Douglas, .	\$11 92.0	\$5,066 00	-	\$5,066 00	425	-
49	50	Templeton, .	11 71.0	6,300 00	\$258 07	6,558 07	660	-
48	51	Auburn, .	11 68.7	3,313 81	344 27	3,658 08	313	-
52	52	Winchendon, .	10 62.3	8,955 49	-	8,955 49	843	\$100 00
51	53	Dudley, .	10 54.9	5,580 40	253 57	5,833 97	553	1,325 00
53	54	Royalston, .	10 52.0	1,200 00	115 01	1,315 01	125	-
54	55	Dana, .	9 34.2	900 00	118 37	1,018 37	109	-
56	56	Southbridge, .	8 72.6	14,904 21	-	14,904 21	1,708	-
57	57	Sutton, .	8 57.7	5,353 65	462 00	5,815 65	678	-
58	58	Webster, .	7 89.2	11,613 78	626 87	12,240 65	1,561	-
59	59	Berlin, .	6 89.7	1,200 00	82 96	1,282 96	186	-

SCHOOL RETURNS.

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GRADUATED TABLES — FIRST SERIES.

Showing the Comparative Amount of Money appropriated by the different Counties in the State for the Education of each Child between the Ages of 5 and 15 Years in the County.

		COUNTIES.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of schools.	Income of funds, with dog tax, appropriated to schools.	TOTAL.	No. of children between 5 and 15 years of age.	Amount contributed for board and fuel.
For 1896-97.	For 1897-98.							
1	1	Suffolk, .	\$24 73.1	\$2,186,272 72	\$49,307 81	\$2,235,580 53	90,393	\$45 00
2	2	Norfolk, .	22 16.6	529,437 77	6,113 27	535,601 04	24,163	2,433 40
3	3	Middlesex, .	20 86.0	1,796,170 92	7,561 44	1,803,732 36	86,468	11,684 00
4	4	Barnstable, .	19 74.5	82,547 50	1,724 66	84,272 16	4,268	-
5	5	Plymouth, .	18 69.2	302,512 85	6,648 52	309,161 37	16,539	499 00
6	6	Hamden, .	17 37.7	494,945 49	3,573 57	498,519 06	28,687	2,663 87
7	7	Dukes, .	16 96.8	8,924 00	357 52	9,281 52	547	107 00
8	8	Worcester, .	16 84.4	932,158 00	8,664 67	940,822 67	55,848	2,171 30
9	9	Essex, .	16 19.3	904,046 90	5,504 18	909,551 08	56,168	189 23
10	10	Franklin, .	15 11.1	102,325 53	1,231 91	103,557 44	6,853	5 00
11	11	Hampshire, .	14 27.9	133,220 03	2,888 23	136,108 26	9,532	400 00
12	12	Berkshire, .	14 22.7	225,134 27	2,182 16	237,316 43	16,680	71,382 40
13	13	Nantucket, .	13 22.0	5,091 89	235 80	5,327 69	403	-
14	14	Bristol, .	13 10.8	579,482 24	7,804 24	587,286 48	44,803	325 00

AGGREGATE FOR THE STATE.

STATE,	\$19 02.3	\$8,292,320 12	\$103,797 98	\$8,396,118 10	441,352	\$91,955 20
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GRADUATED TABLES — FIRST SERIES.

Showing the Comparative Amount of Money, including Voluntary Contributions, appropriated by the different Counties in the State for the Education of each Child between the Ages of 5 and 15 Years in the County.

For 1896-97.	For 1897-98.	COUNTIES.	TOTALS.
1	1	Suffolk,	\$24 73.2
2	2	Norfolk,	22 26.8
3	3	Middlesex,	20 99.5
4	4	Barnstable,	19 74.5
5	5	Plymouth,	18 72.3
13	6	Berkshire,	18 50.7
7	7	Hampden,	17 47.0
11	8	Dukes,	17 16.3
6	9	Worcester,	16 88.5
8	10	Essex,	16 19.6
9	11	Franklin,	15 11.1
10	12	Hampshire,	14 32.1
14	13	Nantucket,	13 22.0
12	14	Bristol,	13 13.7
STATE,			\$19 23.1

GRADUATED TABLES — SECOND SERIES.

The next Table exhibits the appropriation of the cities and towns, as compared with their respective valuation in 1897.

The first column shows the rank of the cities and towns in a similar Table for 1896-97, according to their valuation in 1896.

The second column indicates, in numerical order, the precedence of the cities and towns in respect to the liberality of their appropriations for 1897-98, according to their valuation in 1897.

The third consists of the names of the cities and towns, as numerically arranged.

The fourth shows the percentage of taxable property appropriated to the support of the public schools. The result is equivalent in value to mills and hundredths of mills. The decimals are carried to three figures, in order to indicate more perfectly the distinction between the different towns. The first figure (mills) expresses the principal value, and is separated from the last two figures by a dash.

The appropriations for schools are not given in the following Table, as they may be found by referring to the previous Tables; also in the Abstract of School Returns, commencing on page ii. These appropriations include the sum raised by taxes, the income of the surplus revenue, and of such other funds as the towns may appropriate at their option, either to support common schools, or to pay ordinary municipal expenses. The income of other local funds, and the voluntary contributions, are not included in the estimate. The appropriations are reckoned the same as in the first series of Tables, and for the same reasons.

The amount of taxable property in each city and town, according to the last State valuation, is also omitted, as it is already given in the foregoing Abstract of School Returns.

If the rank assigned to towns in the next Tables is compared with the rank of the same towns in the former series, it will be seen that they hold, in many instances, a very different place in the scale.

GRADUATED TABLES—SECOND SERIES.

[FOR THE STATE.]

A Graduated Table in which all the Towns in the State are numerically arranged according to the Percentage of their Taxable Property appropriated for the support of Public Schools for the Year 1897-98.

For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools— equivalent to mills and hundredths of mills.	For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools— equivalent to mills and hundredths of mills.
5	1	West Boylston,	\$.010-12	55	44	Dighton,	\$.005-48
8	2	Granville,	.008-00	78	45	Sturbridge,	.005-47
2	3	W. Stockbridge,	.007-89	40	46	Medway,	.005-45
1	4	Tyngsborough,	.007-49	71	47	Huntington,	.005-44
61	5	N. Brookfield,	.007-45	34	48	New Salem,	.005-42
16	6	Wales,	.007-43	50	49	Wayland,	.005-41
13	7	Orleans,	.006-91	15	50	E. Longmeadow,	.005-40
6	8	Palmer,	.006-83	54	51	Truro,	.005-40
67	9	Buckland,	.006-64	38	52	Westford,	.005-38
18	10	Holden,	.006-62	108	53	Rockland,	.005-37
3	11	Florida,	.006-57	17	54	Mansfield,	.005-36
4	12	Auburn,	.006-56	108	55	Sudbury,	.005-35
7	13	Holbrook,	.006-50	—	56	Westwood,	.005-34
79	14	Rowe,	.006-50	100	57	Ludlow,	.005-30
9	15	Abington,	.006-43	44	58	Littleton,	.005-29
28	16	Spencer,	.006-40	93	59	Foxborough,	.005-27
75	17	Colrain,	.006-34	86	60	Ware,	.005-22
37	18	North Reading,	.006-29	65	61	Chatham,	.005-21
53	19	Bridgewater,	.006-19	106	62	Danvers,	.005-20
22	20	Brookfield,	.006-18	153	63	Raynham,	.005-19
41	21	North Adams,	.006-18	23	64	Belchertown,	.005-18
157	22	Shutesbury,	.006-18	32	65	E. Bridgewater,	.005-16
19	23	Adams,	.006-16	76	66	Templeton,	.005-16
11	24	Heath,	.006-11	63	67	Lee,	.005-14
10	25	Wrentham,	.006-06	46	68	Erving,	.005-10
85	26	Shelburne,	.006-03	56	69	West Springfield,	.005-10
21	27	Monson,	.006-01	26	70	Georgetown,	.005-09
14	28	Grafton,	.006-00	68	71	Hudson,	.005-09
25	29	Dennis,	.005-99	48	72	Provincetown,	.005-07
47	30	Randolph,	.005-95	105	73	Ashland,	.005-06
51	31	Hawley,	.005-93	57	74	Orange,	.005-05
29	32	Weymouth,	.005-87	45	75	Holliston,	.005-04
115	33	Charlemont,	.005-82	72	76	Easthampton,	.005-02
27	34	N. Attleborough,	.005-80	119	77	Savoy,	.005-01
73	35	Avon,	.005-80	152	78	Blackstone,	.004-97
107	36	Upton,	.005-68	88	79	Whitman,	.004-96
31	37	South Hadley,	.005-65	109	80	Brewster,	.004-96
35	38	Bellingham,	.005-65	95	81	Prescott,	.004-95
64	39	Hinsdale,	.005-63	70	82	Blandford,	.004-94
24	40	Merrimac,	.005-61	77	83	Hopkinton,	.004-94
33	41	Groveland,	.005-60	113	84	Millbury,	.004-94
30	42	Dudley,	.005-58	150	85	Leicester,	.004-94
116	43	Bernardston,	.005-56	308	86	Washington,	.004-93

SCHOOL RETURNS.

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For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
96	87	Concord, . . .	\$.004-91	173	149	Mendon, . . .	\$.004-34
52	88	Rehoboth, . . .	.004-90	162	150	Brockton, . . .	.004-33
59	89	Westminster, . . .	.004-90	188	151	Haverhill, . . .	.004-33
66	90	Sandwich, . . .	.004-89	98	152	Sterling, . . .	.004-32
74	91	Wellfleet, . . .	.004-84	238	153	Monroe, . . .	.004-32
89	92	Gardner, . . .	.004-83	182	154	Norton, . . .	.004-31
12	93	Clarksburg, . . .	.004-81	194	155	Williamstown, . . .	.004-31
135	94	Wilbraham, . . .	.004-80	180	156	Ayer, . . .	.004-30
161	95	Northborough, . . .	.004-80	171	157	Saugus, . . .	.004-28
125	96	Harwich, . . .	.004-79	92	158	Williamsburg, . . .	.004-27
132	97	Malden, . . .	.004-79	254	159	Fairhaven, . . .	.004-27
43	98	Northbridge, . . .	.004-78	155	160	Uxbridge, . . .	.004-26
83	99	Douglas, . . .	.004-78	243	161	Tolland, . . .	.004-25
127	100	Framingham, . . .	.004-78	160	162	West Newbury, . . .	.004-24
112	101	Woburn, . . .	.004-76	154	163	Taunton, . . .	.004-20
42	102	Pepperell, . . .	.004-75	187	164	Middlefield, . . .	.004-20
60	103	Warren, . . .	.004-75	191	165	Hingham, . . .	.004-20
94	104	Conway, . . .	.004-74	130	166	Dracut, . . .	.004-18
82	105	Attleborough, . . .	.004-73	222	167	Holyoke, . . .	.004-18
87	106	Dalton, . . .	.004-73	102	168	Dunstable, . . .	.004-17
84	107	Hanover, . . .	.004-72	205	169	Stoughton, . . .	.004-17
90	108	Swansea, . . .	.004-70	244	170	Northfield, . . .	.004-17
101	109	Richmond, . . .	.004-70	168	171	Rutland, . . .	.004-15
120	110	Ashburnham, . . .	.004-70	178	172	Southbridge, . . .	.004-15
148	111	Everett, . . .	.004-70	183	173	Pittsfield, . . .	.004-14
151	112	Somerset, . . .	.004-70	201	174	Kingston, . . .	.004-14
144	113	Windsor, . . .	.004-69	145	175	Norwood, . . .	.004-13
103	114	Montague, . . .	.004-67	159	176	Cheshire, . . .	.004-13
110	115	Montgomery, . . .	.004-66	196	177	Greenfield, . . .	.004-13
118	116	Peru, . . .	.004-66	124	178	Berkley, . . .	.004-12
58	117	Oxford, . . .	.004-65	139	179	Methuen, . . .	.004-12
141	118	Barre, . . .	.004-64	190	180	Clinton, . . .	.004-12
228	119	Hanson, . . .	.004-64	146	181	Agawam, . . .	.004-11
126	120	Middleborough, . . .	.004-63	237	182	Barnstable, . . .	.004-11
142	121	Fitchburg, . . .	.004-63	169	183	Phillipston, . . .	.004-09
166	122	Westhampton, . . .	.004-61	136	184	Athol, . . .	.004-08
117	123	Ashfield, . . .	.004-59	198	185	Franklin, . . .	.004-07
80	124	Natick, . . .	.004-58	240	186	Medford, . . .	.004-07
133	125	Walpole, . . .	.004-58	216	187	Somerville, . . .	.004-06
81	126	Norfolk, . . .	.004-57	219	188	Millis, . . .	.004-04
131	127	Sutton, . . .	.004-57	210	189	Braintree, . . .	.004-02
123	128	Marlborough, . . .	.004-55	195	190	Milford, . . .	.004-01
137	129	Shrewsbury, . . .	.004-55	192	191	Northampton, . . .	.004-00
134	130	North Andover, . . .	.004-54	250	192	Bolton, . . .	.003-99
158	131	Quincy, . . .	.004-53	184	193	Billerica, . . .	.003-98
121	132	Norwell, . . .	.004-51	181	194	Hyde Park, . . .	.003-97
128	133	Townsend, . . .	.004-51	206	195	Peabody, . . .	.003-97
241	134	Wilmington, . . .	.004-50	217	196	Plymouth, . . .	.003-97
268	135	Westport, . . .	.004-49	226	197	Bedford, . . .	.003-97
122	136	Sheffield, . . .	.004-48	251	198	Ipswich, . . .	.003-97
143	137	Oakham, . . .	.004-48	186	199	Worcester, . . .	.003-96
114	138	Sunderland, . . .	.004-46	170	200	Wakefield, . . .	.003-95
156	139	Leominster, . . .	.004-41	175	201	Amherst, . . .	.003-95
165	140	Enfield, . . .	.004-41	212	202	Otis, . . .	.003-95
138	141	West Brookfield, . . .	.004-40	39	203	Mashpee, . . .	.003-94
185	142	New Braintree, . . .	.004-38	69	204	Hardwick, . . .	.003-94
147	143	Charlton, . . .	.004-37	176	205	Gloucester, . . .	.003-94
167	144	Tewksbury, . . .	.004-36	190	206	Wareham, . . .	.003-93
104	145	Hubbardston, . . .	.004-35	200	207	Lanesborough, . . .	.003-93
149	146	Westborough, . . .	.004-35	193	208	Gt. Barrington, . . .	.003-92
164	147	Westfield, . . .	.004-35	295	209	Tyringham, . . .	.003-92
111	148	Petersham, . . .	.004-34	91	210	Sherborn, . . .	.003-91

For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
172	211	Southborough, . .	\$.003-91	232	272	Winchester, . .	\$.003-32
174	212	Salisbury, . .	.003-91	234	273	N. Marlborough,	.003-31
296	213	Greenwich, . .	.003-91	293	274	Dana, . .	.003-30
223	214	Andover, . .	.003-88	248	275	Lexington, . .	.003-29
230	215	Deerfield, . .	.003-88	276	276	Warwick, . .	.003-29
278	216	Whately, . .	.003-88	224	277	Monterey, . .	.003-26
239	217	Lawrence, . .	.003-87	279	278	Weston, . .	.003-24
299	218	Rockport, . .	.003-87	265	279	Burlington, . .	.003-23
197	219	Gay Head, . .	.003-86	270	280	Fall River, . .	.003-23
214	220	W. Bridgewater,	.003-84	262	281	Acushnet, . .	.003-21
261	221	Becket, . .	.003-84	258	282	Harvard, . .	.003-16
140	222	Dedham, . .	.003-83	286	283	Yarmouth, . .	.003-14
203	223	Ashby, . .	.003-83	225	284	Russell, . .	.003-12
235	224	Chelsea, . .	.003-82	247	285	Boxborough, . .	.003-12
204	225	Easton, . .	.003-81	331	286	Carver, . .	.003-11
218	226	Melrose, . .	.003-81	277	287	Boylston, . .	.003-10
281	227	Revere, . .	.003-81	291	288	Springfield, . .	.003-09
97	228	Brimfield, . .	.003-79	305	289	Belmont, . .	.003-09
221	229	Lynn, . .	.003-79	324	290	Rochester, . .	.003-09
207	230	Reading, . .	.003-78	267	291	Medfield, . .	.003-04
233	231	Canton, . .	.003-78	283	292	Topsfield, . .	.003-04
249	232	Shirley, . .	.003-77	280	293	Eastham, . .	.003-02
213	233	Webster, . .	.003-74	211	294	Gill, . .	.003-01
177	234	Maynard, . .	.003-73	325	295	Lenox, . .	.002-99
99	235	Chester, . .	.003-72	36	296	Pelham, . .	.002-95
215	236	Winchendon, . .	.003-71	314	297	Goshen, . .	.002-92
163	237	Granby, . .	.003-70	287	298	Lakeville, . .	.002-87
202	238	Longmeadow, . .	.003-70	298	299	Carlisle, . .	.002-87
227	239	Southwick, . .	.003-67	303	300	Dartmouth, . .	.002-84
288	240	Chicopee, . .	.003-67	309	301	Winthrop, . .	.002-82
208	241	Needham, . .	.003-66	289	302	Lynnfield, . .	.002-78
266	242	Amesbury, . .	.003-65	306	303	Paxton, . .	.002-78
252	243	Hadley, . .	.003-64	321	304	Scituate, . .	.002-78
231	244	Stoneham, . .	.003-62	292	305	Hatfield, . .	.002-76
255	245	Arlington, . .	.003-62	307	306	Royalston, . .	.002-76
253	246	Lowell, . .	.003-59	311	307	Lancaster, . .	.002-76
274	247	Salem, . .	.003-59	317	308	Tisbury, . .	.002-76
264	248	Leverett, . .	.003-58	302	309	Duxbury, . .	.002-74
285	249	Wendell, . .	.003-58	304	310	Newton, . .	.002-73
209	250	Pembroke, . .	.003-57	260	311	Freetown, . .	.002-72
245	251	Chelmsford, . .	.003-57	294	312	Groton, . .	.002-71
275	252	Sandisfield, . .	.003-56	323	313	Wellesley, . .	.002-70
290	253	Bourne, . .	.003-55	273	314	Newbury, . .	.002-69
256	254	Princeton, . .	.003-53	310	315	Berlin, . .	.002-65
267	255	Chesterfield, . .	.003-51	322	316	Stockbridge, . .	.002-60
271	256	Hampden, . .	.003-49	301	317	Holland, . .	.002-59
297	257	Watertown, . .	.003-49	320	318	Edgartown, . .	.002-56
229	258	Essex, . .	.003-48	315	319	Dover, . .	.002-55
220	259	Waltham, . .	.003-45	316	320	Seekonk, . .	.002-55
246	260	Rowley, . .	.003-44	236	321	New Ashford, . .	.002-52
263	261	Cambridge, . .	.003-44	300	322	Plympton, . .	.002-52
282	262	Marshfield, . .	.003-44	313	323	Cohasset, . .	.002-49
189	263	Lunenburg, . .	.003-42	340	324	Lincoln, . .	.002-49
259	264	Plainfield, . .	.003-41	62	325	Cummington, . .	.002-48
242	265	Marblehead, . .	.003-39	330	326	Hancock, . .	.002-48
284	266	Middleton, . .	.003-39	319	327	New Bedford, . .	.002-39
273	267	Newbury, . .	.003-36	326	328	Leyden, . .	.002-38
272	268	Acton, . .	.003-35	333	329	Swampscott, . .	.002-34
129	269	Halifax, . .	.003-34	339	330	Egremont, . .	.002-29
179	270	Worthington, . .	.003-34	335	331	Beverly, . .	.002-24
269	271	Southampton, . .	.003-33	328	332	Marion, . .	.002-20

SCHOOL RETURNS.

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For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools— equivalent to mills and hundredths of mills.	For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools— equivalent to mills and hundredths of mills.
318	333	Stow, . . .	¢.002-17	347	344	Alford, . . .	¢.001-74
337	334	Sharon, . . .	.002-17	345	345	Chilmark, . . .	.001-73
348	335	Cottage City, . .	.002-15	346	346	Brookline, . . .	.001-62
336	336	Milton, . . .	.002-13	344	347	Nantucket, . . .	.001-58
338	337	Boston, . . .	.002-06	327	348	Hopedale, . . .	.001-43
342	338	Falmouth, . . .	.002-01	350	349	Mt. Washington,	.001-41
332	339	Wenham, . . .	.001-98	341	350	Hull, . . .	.001-29
343	340	West Tisbury, . .	.001-96	352	351	Manchester, . . .	.001-06
349	341	Hamilton, . . .	.001-88	351	352	Nahant, . . .	.000-90
334	342	Mattapoisett, . .	.001-87	353	353	Gosnold, . . .	.000-44
329	343	Boxford, . . .	.001-82				

GRADUATED TABLES — SECOND SERIES.

[COUNTY TABLES.]

In which all the Towns in the respective Counties in the State are numerically arranged according to the Percentage of their Taxable Property appropriated for the Support of Public Schools for the Year 1897-98.

BARNSTABLE COUNTY.

For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
1	1	Orleans, . . .	\$.006-91	10	9	Harwich, . . .	\$.004-79
2	2	Dennis, . . .	.005-99	11	10	Barnstable, . .	.004-11
5	3	Truro, . . .	.005-40	3	11	Mashpee, . . .	.003-94
6	4	Chatham, . . .	.005-21	14	12	Bourne, . . .	.003-55
4	5	Provincetown, .	.005-07	13	13	Yarmouth, . . .	.003-14
9	6	Brewster, . . .	.004-96	12	14	Eastham, . . .	.003-02
7	7	Sandwich, . . .	.004-89	15	15	Falmouth, . . .	.002-01
8	8	Wellfleet, . . .	.004-84				

BERKSHIRE COUNTY.

1	1	W. Stockbridge, .	\$.007-89	14	17	Cheshire, . . .	\$.004-13
2	2	Florida, . . .	.006-57	19	18	Otis, . . .	.003-95
5	3	North Adams, . .	.006-18	18	19	Lanesborough, .	.003-93
4	4	Adams, . . .	.006-16	16	20	Gt. Barrington, .	.003-92
7	5	Hinsdale, . . .	.005-63	25	21	Tyringham, . . .	.003-92
6	6	Lee, . . .	.005-14	23	22	Becket, . . .	.003-84
11	7	Savoy, . . .	.005-01	24	23	Sandisfield, . . .	.003-56
26	8	Washington, . . .	.004-93	21	24	New Marlboro', .	.003-31
3	9	Clarksburg, . . .	.004-81	20	25	Monterey, . . .	.003-26
8	10	Dalton, . . .	.004-73	28	26	Lenox, . . .	.002-99
9	11	Richmond, . . .	.004-70	27	27	Stockbridge, . .	.002-60
13	12	Windsor, . . .	.004-69	22	28	New Ashford, . .	.002-52
10	13	Pernu, . . .	.004-66	29	29	Hancock, . . .	.002-48
12	14	Sheffield, . . .	.004-48	30	30	Egremont, . . .	.002-29
17	15	Williamstown, . .	.004-31	31	31	Alford, . . .	.001-74
15	16	Pittsfield, . . .	.004-14	32	32	Mt. Washington, .	.001-41

BRISTOL COUNTY.

2	1	N. Attleboro', . .	\$.005-80	5	6	Attleborough, . .	\$.004-73
4	2	Dighton, . . .	.005-48	6	7	Swansea, . . .	.004-70
1	3	Mansfield, . . .	.005-36	8	8	Somerset, . . .	.004-70
9	4	Raynham,005-19	16	9	Westport,004-49
3	5	Rehoboth,004-90	11	10	Norton,004-31

SCHOOL RETURNS.

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BRISTOL COUNTY — CONCLUDED.

For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of valu- ation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of valu- ation appropriated to public schools — equivalent to mills and hundredths of mills.
13	11	Fairhaven, . . .	\$.004-27	15	16	Acushnet, . . .	\$.003-21
10	12	Taunton, . . .	.004-20	18	17	Dartmouth, . . .	.002-84
7	13	Berkley, . . .	.004-12	14	18	Freetown, . . .	.002-72
12	14	Easton, . . .	.003-81	19	19	Seekonk, . . .	.002-55
17	15	Fall River, . . .	.003-23	20	20	New Bedford, . .	.002-39

DUKES COUNTY.

1	1	Gay Head, . . .	\$.003-86	4	5	West Tisbury, . .	\$.001-96
2	2	Tisbury, . . .	.002-76	5	6	Chilmark, . . .	.001-73
3	3	Edgartown, . . .	.002-56	7	7	Gosnold, . . .	.000-44
6	4	Cottage City, . .	.002-15				

ESSEX COUNTY.

2	1	Merrimac, . . .	\$.005-61	21	18	Amesbury, . . .	\$.003-65
4	2	Groveland, . . .	.005-60	23	19	Salem, . . .	.003-59
5	3	Danvers, . . .	.005-20	16	20	Essex, . . .	.003-48
3	4	Georgetown, . . .	.005-09	19	21	Rowley, . . .	.003-44
6	5	North Andover, .	.004-54	18	22	Marblehead, . .	.003-39
12	6	Haverhill, . . .	.004-33	25	23	Middleton, . . .	.003-39
9	7	Saugus, . . .	.004-28	22	24	Newbury, . . .	.003-36
8	8	West Newbury, .	.004-24	24	25	Topsfield, . . .	.003-04
7	9	Methuen, . . .	.004-12	26	26	Lynnfield, . . .	.002-78
13	10	Peabody, . . .	.003-97	28	27	Newburyport, . .	.002-69
20	11	Ipswich, . . .	.003-97	31	28	Swampscott, . .	.002-34
11	12	Gloucester, . . .	.003-94	32	29	Beverly, . . .	.002-24
10	13	Salisbury, . . .	.003-91	30	30	Wenham, . . .	.001-98
15	14	Andover, . . .	.003-88	33	31	Hamilton, . . .	.001-88
17	15	Lawrence, . . .	.003-87	29	32	Boxford, . . .	.001-82
27	16	Rockport, . . .	.003-87	35	33	Manchester, . . .	.001-06
14	17	Lynn, . . .	.003-79	34	34	Nahant, . . .	.000-90

FRANKLIN COUNTY.

6	1	Buckland, . . .	\$.006-64	11	14	Montague, . . .	\$.004-67
8	2	Rowe, . . .	.006-50	15	15	Ashfield, . . .	.004-59
7	3	Colrain, . . .	.006-34	12	16	Sunderland, . . .	.004-46
16	4	Shutesbury, . .	.006-18	20	17	Monroe, . . .	.004-32
1	5	Heath, . . .	.006-11	21	18	Northfield, . . .	.004-17
9	6	Shelburne, . . .	.006-03	17	19	Greenfield, . . .	.004-13
4	7	Hawley, . . .	.005-93	19	20	Deerfield, . . .	.003-88
13	8	Charlemont, . .	.005-82	24	21	Whately, . . .	.003-88
14	9	Bernardston, . .	.005-56	22	22	Leverett, . . .	.003-58
2	10	New Salem, . .	.005-42	25	23	Wendell, . . .	.003-58
3	11	Erving, . . .	.005-10	23	24	Warwick, . . .	.003-29
5	12	Orange, . . .	.005-05	18	25	Gill, . . .	.003-01
10	13	Conway, . . .	.004-74	26	26	Leyden, . . .	.002-88

BOARD OF EDUCATION.

HAMPDEN COUNTY.

For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
2	1	Granville, . . .	\$.008-00	16	13	Holyoke, . . .	\$.004-18
4	2	Wales, . . .	.007-43	13	14	Agawam, . . .	.004-11
1	3	Palmer, . . .	.006-83	8	15	Brimfield, . . .	.003-79
5	4	Monson, . . .	.006-01	9	16	Chester, . . .	.003-72
3	5	E. Longmeadow, . . .	.005-40	15	17	Longmeadow, . . .	.003-70
10	6	Ludlow, . . .	.005-30	18	18	Southwick, . . .	.003-67
6	7	West Springfield, . . .	.005-10	21	19	Chicopee, . . .	.003-67
7	8	Blandford, . . .	.004-94	20	20	Hampden, . . .	.003-49
12	9	Wilbraham, . . .	.004-80	17	21	Russell, . . .	.003-12
11	10	Montgomery, . . .	.004-66	22	22	Springfield, . . .	.003-09
14	11	Westfield, . . .	.004-35	23	23	Holland, . . .	.002-59
19	12	Tolland, . . .	.604-25				

HAMPSHIRE COUNTY.

2	1	South Hadley, . . .	\$.005-65	22	13	Greenwich, . . .	\$.003-91
5	2	Huntington, . . .	.005-44	10	14	Granby, . . .	.003-70
7	3	Ware, . . .	.005-22	17	15	Hadley, . . .	.003-64
1	4	Belchertown, . . .	.005-18	18	16	Chesterfield, . . .	.003-51
6	5	Easthampton, . . .	.005-02	19	17	Plainfield, . . .	.003-41
9	6	Prescott, . . .	.004-95	14	18	Worthington, . . .	.003-34
12	7	Westhampton, . . .	.004-61	20	19	Southampton, . . .	.003-33
11	8	Enfield, . . .	.004-41	3	20	Pelham, . . .	.002-95
8	9	Williamsburg, . . .	.004-27	23	21	Goshen, . . .	.002-92
15	10	Middlefield, . . .	.004-20	21	22	Hatfield, . . .	.002-76
16	11	Northampton, . . .	.004-00	4	23	Cummington, . . .	.002-48
13	12	Amherst, . . .	.003-95				

MIDDLESEX COUNTY.

1	1	Tyngsborough, . . .	\$.007-49	20	23	Dracut, . . .	\$.004-18
2	2	North Reading, . . .	.006-29	13	24	Dunstable, . . .	.004-17
7	3	Wayland, . . .	.005-41	36	25	Medford, . . .	.004-07
3	4	Westford, . . .	.005-38	30	26	Somerville, . . .	.004-06
15	5	Sudbury, . . .	.005-35	28	27	Billerica, . . .	.003-98
5	6	Littleton, . . .	.005-29	33	28	Bedford, . . .	.003-97
8	7	Hudson, . . .	.005-09	25	29	Wakefield, . . .	.003-95
14	8	Ashland, . . .	.005-06	11	30	Sherborn, . . .	.003-91
6	9	Holliston, . . .	.005-04	22	31	Ashby, . . .	.003-83
9	10	Hopkinton, . . .	.004-94	31	32	Melrose, . . .	.003-81
12	11	Concord, . . .	.004-91	29	33	Reading, . . .	.003-78
21	12	Malden, . . .	.004-79	41	34	Shirley, . . .	.003-77
18	13	Frammingham, . . .	.004-78	26	35	Maynard, . . .	.003-73
16	14	Woburn, . . .	.004-76	34	36	Stoneham, . . .	.003-62
4	15	Pepperell, . . .	.004-75	43	37	Arlington, . . .	.003-62
23	16	Everett, . . .	.004-70	42	38	Lowell, . . .	.003-59
10	17	Natick, . . .	.004-58	38	39	Chelmsford, . . .	.003-57
17	18	Marlborough, . . .	.004-55	49	40	Watertown, . . .	.003-49
19	19	Townsend, . . .	.004-51	32	41	Waltham, . . .	.003-45
37	20	Wilmington, . . .	.004-50	44	42	Cambridge, . . .	.003-44
24	21	Tewksbury,004-36	46	43	Acton,003-35
27	22	Ayer,004-30	35	44	Winchester,003-32

SCHOOL RETURNS.

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MIDDLESEX COUNTY — CONCLUDED.

For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
40	45	Lexington, . . .	\$.003-29	50	50	Carlisle, . . .	\$.002-87
47	46	Weston, . . .	.003-24	51	51	Newton, . . .	.002-73
45	47	Burlington, . . .	.003-23	48	52	Groton, . . .	.002-71
39	48	Boxborough,003-12	54	53	Lincoln,002-49
52	49	Belmont,003-09	53	54	Stow,002-17

NANTUCKET COUNTY.

		Nantucket,	\$.001 58
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NORFOLK COUNTY.

1	1	Holbrook, . . .	\$.006-50	14	15	Franklin, . . .	\$.004-07
2	2	Wrentham,006-06	19	16	Millis,004-04
6	3	Randolph, . . .	.005-95	18	17	Braintree, . . .	.004-02
3	4	Weymouth, . . .	.005-87	13	18	Hyde Park, . . .	.003-97
7	5	Avon, . . .	.005-80	15	19	Dedham, . . .	.003-83
4	6	Bellingham, . . .	.005-65	20	20	Canton, . . .	.003-78
5	7	Medway, . . .	.005-45	17	21	Needham, . . .	.003-66
—	8	Westwood, . . .	.005-34	21	22	Medfield, . . .	.003-04
9	9	Foxborough, . . .	.005-27	24	23	Wellesley, . . .	.002-70
10	10	Walpole, . . .	.004-58	23	24	Dover, . . .	.002-55
8	11	Norfolk, . . .	.004-57	22	25	Cohasset, . . .	.002-49
12	12	Quincy, . . .	.004-53	26	26	Sharon, . . .	.002-17
16	13	Stoughton, . . .	.004-17	25	27	Milton, . . .	.002-13
11	14	Norwood, . . .	.004-13	27	28	Brookline, . . .	.001-62

PLYMOUTH COUNTY.

1	1	Abington, . . .	\$.006-43	15	15	W. Bridgewater, . . .	\$.003-84
4	2	Bridgewater, . . .	.006-19	14	16	Pembroke, . . .	.003-57
3	3	Rockland, . . .	.005-37	18	17	Marshfield, . . .	.003-44
2	4	E. Bridgewater, . . .	.005-16	9	18	Halifax, . . .	.003-34
6	5	Whitman, . . .	.004-96	25	19	Carver, . . .	.003-11
5	6	Hanover, . . .	.004-72	23	20	Rochester, . . .	.003-09
17	7	Hanson, . . .	.004-64	19	21	Lakeville, . . .	.002-87
8	8	Middleborough, . . .	.004-63	22	22	Scituate, . . .	.002-78
7	9	Norwell, . . .	.004-51	21	23	Duxbury, . . .	.002-74
10	10	Brockton, . . .	.004-33	20	24	Plympton, . . .	.002-52
11	11	Hingham, . . .	.004-20	24	25	Marion, . . .	.002-20
13	12	Kingston, . . .	.004-14	26	26	Mattapoisett, . . .	.001-87
16	13	Plymouth, . . .	.003-97	27	27	Hull, . . .	.001-29
12	14	Wareham, . . .	.003-93				

SUFFOLK COUNTY.

1	1	Chelsea, . . .	\$.003-82	3	3	Winthrop, . . .	\$.002-82
2	2	Revere, . . .	.003-81	4	4	Boston, . . .	.002-06

WORCESTER COUNTY.

For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.	For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	TOWNS.	Percentage of val- uation appropriated to public schools — equivalent to mills and hundredths of mills.
2	1	W. Boylston, .	¢.010-12	31	31	Charlton, .	¢.004-37
12	2	No. Brookfield, .	.007-45	19	32	Hubbardston, .	.004-35
4	3	Holden, .	.006-62	32	33	Westborough, .	.004-35
1	4	Auburn, .	.006-56	21	34	Petersham, .	.004-34
6	5	Spencer, .	.006-40	41	35	Mendon, .	.004-34
5	6	Brookfield, .	.006-18	18	36	Sterling, .	.004-32
3	7	Grafton, .	.006-00	35	37	Uxbridge, .	.004-26
20	8	Upton, .	.005-68	38	38	Rutland, .	.004-15
7	9	Dudley, .	.005-58	42	39	Southbridge, .	.004-15
15	10	Sturbridge, .	.005-47	46	40	Clinton, .	.004-12
14	11	Templeton, .	.005-16	39	41	Phillipston, .	.004-09
34	12	Blackstone, .	.004-97	25	42	Athol, .	.004-08
22	13	Millbury, .	.004-94	47	43	Milford, .	.004-01
33	14	Leicester, .	.004-94	50	44	Bolton, .	.003-99
10	15	Westminster, .	.004-90	44	45	Worcester, .	.003-96
17	16	Gardner, .	.004-83	13	46	Hardwick, .	.003-94
37	17	Northborough, .	.004-80	40	47	Southborough, .	.003-91
8	18	Northbridge, .	.004-78	48	48	Webster, .	.003-74
16	19	Douglas, .	.004-78	49	49	Winchendon, .	.003-71
11	20	Warren, .	.004-75	51	50	Princeton, .	.003-53
23	21	Ashburnham, .	.004-70	45	51	Lunenburg, .	.003-42
9	22	Oxford, .	.004-65	54	52	Dana, .	.003-30
28	23	Barre, .	.004-64	52	53	Harvard, .	.003-16
29	24	Fitchburg, .	.004-63	53	54	Boylston, .	.003-10
24	25	Sutton, .	.004-57	55	55	Paxton, .	.002-78
26	26	Shrewsbury, .	.004-55	56	56	Royalston, .	.002-76
30	27	Oakham, .	.004-48	58	57	Lancaster, .	.002-76
36	28	Leominster, .	.004-41	57	58	Berlin, .	.002-65
27	29	W. Brookfield, .	.004-40	59	59	Hopedale, .	.001-43
43	30	New Braintree, .	.004-38				

SCHOOL RETURNS.

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GRADUATED TABLES — SECOND SERIES.

Showing the different Counties in the State, numerically arranged, according to the Percentage of their Taxable Property appropriated for the Support of Public Schools for the Year 1897-98.

For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	COUNTIES.	Percentage of valuation appropriated to public schools — equivalent to mills and hundredths of mills.	Amount of money raised by taxes, for the support of public schools.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	TOTAL.	Valuation of 1897.	Amount contributed for board and fuel.
1	1	Franklin,	\$.004-62	\$102,325 53	\$1,231 91	\$103,557 44	\$22,379,060	\$5 00
3	2	Berkshire,	.004-55	235,134 27	2,182 16	237,316 43	52,091,969	71,382 40
2	3	Hampshire,	.004-34	133,220 03	2,888 23	136,108 26	31,358,318	400 00
4	4	Worcester,	.004-27	932,158 00	8,664 67	940,822 67	220,065,721	2,171 30
5	5	Plymouth,	.004-12	302,512 85	6,648 52	309,161 37	74,963,834	499 00
7	6	Barnstable,	.003-78	82,547 50	1,724 66	84,272 16	22,274,593	—
6	7	Middlesex,	.003-77	1,796,170 92	7,561 44	1,803,732 36	478,402,809	11,684 00
8	8	Hampden,	.003-76	494,945 49	3,573 57	498,519 06	132,517,091	2,663 87
9	9	Essex,	.003-68	904,046 90	5,504 18	909,551 08	253,643,612	189 23
10	10	Bristol,	.003-27	579,482 24	7,804 21	587,286 48	179,578,673	325 00
11	11	Norfolk,	.003-03	529,487 77	6,113 27	535,601 04	176,518,091	2,483 40
13	12	Dukes,	.002-23	8,924 00	357 52	9,281 52	4,146,335	107 00
12	13	Suffolk,	.002-12	2,186,272 72	49,307 81	2,235,580 53	1,051,021,706	45 00
14	14	Nantucket,	.001-58	5,091 89	235 80	5,327 69	3,366,242	—

AGGREGATE FOR THE STATE.

STATE,	\$.003-10	\$8,292,320 12	\$103,797 98	\$8,396,118 10	\$2,702,328,054	\$91,955 20
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GRADUATED TABLES — SECOND SERIES.

Showing the Arrangement of Counties according to their Appropriations, including Voluntary Contributions.

For 1896-97, by the State valuation of 1896.	For 1897-98, by the State valuation of 1897.	COUNTIES.	Percentage of valuation appropriated to public schools — equivalent to mills and hundredths of mills.
3	1	Berkshire,	\$.005-92
1	2	Franklin, . . . . .	.004-62
2	3	Hampshire, . . . . .	.004-35
4	4	Worcester, . . . . .	.004-28
5	5	Plymouth, . . . . .	.004-13
6	6	Middlesex, . . . . .	.003-79
7	7	Barnstable, . . . . .	.003-78
8	8	Hampden, . . . . .	.003-78
9	9	Essex, . . . . .	.003-58
10	10	Bristol, . . . . .	.003-27
11	11	Norfolk, . . . . .	.003-04
13	12	Dukes, . . . . .	.002-26
12	13	Suffolk, . . . . .	.002-12
14	14	Nantucket, . . . . .	.001-58
STATE,			\$.003-10

GRADUATED TABLES — THIRD SERIES.

The following Table exhibits the ratio of the average attendance for the year in each town to the whole number of children between 5 and 15 according to the returns.

The ratio is expressed in decimals, continued to four figures, the first two of which are separated from the last two by a dash, as only the two former are essential to denote the real per cent. Yet the ratios of many towns are so nearly equal, or the difference is so small a fraction, that the first two decimals with the appropriate mathematical sign appended indicate no distinction. The continuation of the decimals, therefore, is simply to indicate a priority in cases where, without such continuation, the ratios would appear to be precisely similar.

In several cases the ratio of attendance exhibited in the Table is over 100 per cent. These results, supposing the registers to have been properly kept and the returns correctly made, are to be thus explained: The average attendance upon all public schools being compared with the whole number of children in the town between 5 and 15, the result may be over 100 per cent., because the attendance of children under 5 and over 15 may more than compensate for the absence of children between those ages. The rank of the towns standing highest in the following Table is in accordance with the returns. As the returns are often incorrect, the rank may be too high in some cases.

GRADUATED TABLES—THIRD SERIES.

[FOR THE STATE.]

In which all the Towns in the State are numerically arranged according to the AVERAGE ATTENDANCE of the Children upon the Public Schools for the Year 1897-98.

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	Ashfield, .	114	147	1.28-94	41	Melrose, .	2,065	2,078	1.00-62
2	Middlefield, .	70	89	1.27-14	42	W. Springfield, .	1,253	1,259	1.00-47
3	Prescott, .	43	51	1.18-60	43	Sandwich, .	213	214	1.00-46
4	Freetown, .	156	177	1.13-46	44	Belmont, .	436	438	1.00-45
5	Holliston, .	363	411	1.13-22	45	Norwell, .	232	233	1.00-43
6	Whitman, .	849	936	1.10-24	46	Nahant, .	109	109	1.00-00
7	Marblehead, .	976	1,071	1.09-73	47	Sudbury, .	156	156	1.00-00
8	Hanover, .	279	302	1.08-24	48	Acton, .	260	259	.99-61
9	West Boylston, .	437	472	1.08-00	49	Falmouth, .	395	393	.99-49
10	Hopkinton, .	433	467	1.07-85	50	Wellfleet, .	130	129	.99-23
11	Brookfield, .	470	505	1.07-44	51	Amherst, .	644	638	.99-06
12	Concord, .	697	744	1.06-74	52	Gt. Barrington, .	752	744	.98-93
13	Arlington, .	1,067	1,137	1.06-56	53	Winchester, .	1,143	1,129	.98-77
14	Medfield, .	207	220	1.06-28	54	Norwood, .	926	914	.98-70
15	Phillipston, .	55	58	1.05-45	55	Mashpee, .	58	57	.98-27
16	Westford, .	381	401	1.05-24	56	Holden, .	460	452	.98-26
17	Orange, .	953	1,001	1.05-03	57	Bridgewater, .	553	543	.98-19
18	Ashland, .	328	343	1.04-57	58	Charlemont, .	161	158	.98-13
19	Ayer, .	387	404	1.04-39	59	Lenox, .	522	512	.98-08
20	Ashby, .	115	120	1.04-34	60	Medway, .	468	459	.98-07
21	Chatham, .	258	268	1.03-87	61	Greenfield, .	1,197	1,171	.97-82
22	Randolph, .	588	608	1.03-40	62	Medford, .	2,678	2,617	.97-72
23	Brookline, .	2,694	2,785	1.03-37	63	Blandford, .	128	125	.97-65
24	Manchester, .	293	302	1.03-07	64	Frammingham, .	1,820	1,776	.97-58
25	Littleton, .	185	190	1.02-70	65	Gloucester, .	4,108	4,008	.97-56
26	Essex, .	268	275	1.02-61	66	Monson, .	589	574	.97-45
27	Granby, .	115	118	1.02-60	67	Danvers, .	1,356	1,321	.97-41
28	Merrimac, .	359	368	1.02-50	68	Wrentham, .	450	438	.97-33
29	Natick, .	1,538	1,574	1.02-34	69	Cohasset, .	368	358	.97-28
30	Needham, .	644	659	1.02-32	70	Leominster, .	1,505	1,463	.97-20
31	Topsfield, .	132	135	1.02-27	71	Sterling, .	178	173	.97-19
32	Dunstable, .	51	52	1.01-96	72	Abington, .	674	654	.97-03
33	Conway, .	194	197	1.01-54	73	Hopedale, .	232	225	.96-98
34	Weston, .	205	208	1.01-46	74	Dalton, .	562	545	.96-97
35	Dedham, .	1,166	1,181	1.01-28	75	Gay Head, .	33	32	.96-96
36	Dennis, .	381	386	1.01-03	76	Braintree, .	938	908	.96-80
37	Barnstable, .	620	626	1.00-96	77	Weymouth, .	1,871	1,810	.96-73
38	Tisbury, .	114	115	1.00-87	78	Stoneham, .	970	938	.96-70
39	Bellingham, .	242	244	1.00-82	79	Hingham, .	635	613	.96-53
40	Westborough, .	706	711	1.00-70	80	Lincoln, .	143	138	.96-50

SCHOOL RETURNS.

cxvii

TOWNS.					TOWNS.				
		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
81	Everett, .	3,713	3,576	.96-31	141	Williamsburg, .	385	341	.88-57
82	Plymouth, .	1,326	1,275	.96-15	142	Boxborough, .	61	54	.88-52
83	Duxbury, .	245	235	.95-91	143	Truro, .	155	137	.88-38
84	South Hadley, .	768	736	.95-83	144	Princeton, .	120	106	.88-33
85	Provincetown, .	739	708	.95-80	145	Berkley, .	136	120	.88-23
86	Wakefield, .	1,563	1,497	.95-77	146	Milton, .	1,099	969	.88-17
87	Holbrook, .	411	393	.95-62	147	Mattapoisett, .	133	117	.87-96
88	Mansfield, .	660	631	.95-60	148	W. Brookfield, .	215	189	.87-90
89	Shelburne, .	228	217	.95-17	149	North Reading, .	144	126	.87-50
90	Rockland, .	960	913	.95-10	150	Dighton, .	240	209	.87-08
91	Hinsdale, .	243	231	.95-06	151	Groton, .	378	328	.86-80
92	Mendon, .	138	131	.94-92	152	Fairhaven, .	568	493	.86-79
93	Millis, .	174	165	.94-82	153	West Tisbury, .	53	46	.86-79
94	Saugus, .	897	850	.94-76	154	Northbridge, .	1,203	1,044	.86-78
95	Maynard, .	570	540	.94-73	155	Wilmington, .	284	246	.86-61
96	Easthampton, .	835	790	.94-61	156	Wellesley, .	669	579	.86-84
97	Georgetown, .	330	312	.94-54	157	Uxbridge, .	552	503	.86-42
98	Shutesbury, .	54	51	.94-44	158	Brockton, .	6,114	5,261	.86-04
99	Warren, .	664	627	.94-42	159	Shirley, .	221	190	.85-97
100	Avon, .	265	250	.94-33	160	Walpole, .	537	461	.85-84
101	Hudson, .	911	859	.94-29	161	W. Stockbridge, .	228	195	.85-52
102	Milford, .	1,388	1,307	.94-16	162	Charlton, .	297	254	.85-52
103	Andover, .	941	886	.94-15	163	Bedford, .	206	176	.85-43
104	E. Bridgewater, .	456	429	.94-07	164	Oakham, .	103	88	.85-43
105	West Newbury, .	229	215	.93-89	165	Williamstown, .	803	686	.85-42
106	N. Attleboro', .	1,202	1,127	.93-76	166	Sunderland, .	96	82	.85-41
107	Lexington, .	543	508	.93-55	167	Orleans, .	178	152	.85-39
108	Shrewsbury, .	246	230	.93-49	168	Hull, .	143	122	.85-31
109	Plainfield, .	76	71	.93-42	169	Harvard, .	149	127	.85-23
110	Westminster, .	210	196	.93-33	170	Lancaster, .	392	334	.85-20
111	Pepperell, .	597	557	.93-29	171	Southborough, .	315	268	.85-07
112	Oxford, .	387	360	.93-02	172	Barre, .	325	276	.84-92
113	Groveland, .	400	372	.93-00	173	Edgartown, .	139	118	.84-89
114	Kingston, .	308	286	.92-85	174	Malden, .	5,303	4,501	.84-87
115	Reading, .	864	802	.92-82	175	Pembroke, .	198	168	.84-84
116	Carver, .	165	153	.92-72	176	Beverly, .	2,031	1,723	.84-83
117	Ashburnham, .	367	340	.92-64	177	Attleborough, .	1,697	1,439	.84-79
118	Winchendon, .	843	779	.92-40	178	Boxford, .	92	78	.84-78
119	Cheshire, .	179	165	.92-17	179	Northborough, .	380	322	.84-73
120	Erving, .	197	181	.91-87	180	Billerica, .	490	415	.84-69
121	Marshallfield, .	246	225	.91-46	181	Westfield, .	1,942	1,642	.84-55
122	Middleborough, .	987	901	.91-28	182	Stow, .	128	108	.84-37
123	Bourne, .	314	286	.91-08	183	Gardner, .	1,700	1,434	.84-35
124	Leicester, .	545	496	.91-00	184	Bolton, .	126	106	.84-12
125	Chelmsford, .	563	512	.90-94	185	Lee, .	604	508	.84-10
126	Lunenburg, .	198	180	.90-90	186	Tyngsborough, .	88	74	.84-09
127	Hubbardston, .	176	160	.90-90	187	Huntington, .	292	245	.83-90
128	Yarmouth, .	202	183	.90-59	188	Pittsfield, .	3,946	3,306	.83-78
129	Chesterfield, .	81	73	.90-12	189	Hamilton, .	240	201	.83-75
130	Upton, .	290	261	.90-00	190	Wareham, .	575	481	.83-65
131	Easton, .	841	756	.89-89	191	W. Bridgewater, .	263	220	.83-65
132	Cummington, .	116	104	.89-65	192	Newton, .	5,054	4,226	.83-61
133	North Andover, .	754	674	.89-38	193	Winthrop, .	798	666	.83-45
134	Somerville, .	9,113	8,144	.89-36	194	Springfield, .	8,814	7,318	.83-02
135	Wayland, .	422	377	.89-33	195	Methuen, .	1,183	956	.82-99
136	Rutland, .	195	174	.89-23	196	Sharon, .	235	195	.82-97
137	Monroe, .	45	40	.88-88	197	Millbury, .	861	714	.82-92
138	Rockport, .	769	683	.88-81	198	Northfield, .	226	187	.82-74
139	Foxborough, .	530	470	.88-67	199	Petersham, .	115	95	.82-60
140	Townsend, .	281	249	.88-61	200	Worthington, .	132	109	.82-57

TOWNS.					TOWNS.				
		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
201	Blackstone, .	763	630	.82-56	261	Montgomery, .	49	37	.75-51
202	Swansea, .	243	200	.82-30	262	Warwick, .	102	77	.75-49
203	Belchertown, .	488	400	.81-96	263	Westwood, .	130	98	.75-38
204	Quincy, .	4,720	3,866	.81-90	264	Ipswich, .	818	616	.75-30
205	Heath, .	105	86	.81-90	265	Whately, .	97	73	.75-25
206	Athol, .	1,070	876	.81-86	266	Halifax, .	84	63	.75-00
207	Eastham, .	66	54	.81-81	267	Stockbridge, .	440	330	.75-00
208	Dana, .	109	89	.81-65	268	Southwick, .	201	150	.74-62
209	Royalston, .	125	102	.81-60	269	Hampden, .	106	79	.74-52
210	Russell, .	156	127	.81-41	270	Stoughton, .	867	645	.74-39
211	Westhampton, .	91	74	.81-31	271	New Marlboro', .	214	159	.74-29
212	Templeton, .	560	455	.81-25	272	Longmeadow, .	101	75	.74-25
213	Scituate, .	400	325	.81-25	273	Monterey, .	97	72	.74-22
214	Adams, .	2,134	1,723	.80-74	274	Taunton, .	5,005	3,714	.74-20
215	Tolland, .	57	46	.80-70	275	Montague, .	1,339	992	.74-08
216	Colrain, .	290	234	.80-68	276	Marion, .	160	118	.73-75
217	Lynn, .	10,297	8,300	.80-60	277	Haverhill, .	5,819	4,289	.73-70
218	Lanesboro', .	133	107	.80-45	278	Tewksbury, .	463	341	.73-65
219	Sturbridge, .	326	262	.80-36	279	Brewster, .	163	120	.73-61
220	Grafton, .	871	700	.80-36	280	Peabody, .	1,996	1,468	.73-54
221	Washington, .	66	53	.80-30	281	New Salem, .	158	116	.73-41
222	Worcester, .	18,940	15,134	.79-90	282	Clinton, .	2,300	1,688	.73-39
223	Boston, .	81,947	65,331	.79-72	283	Chilmark, .	30	22	.73-33
224	Rehoboth, .	305	243	.79-67	284	Newbury, .	247	181	.73-27
225	Hadley, .	283	225	.79-50	285	Wenham, .	153	112	.73-20
226	E. L'ngm'dow, .	350	278	.79-42	286	Carlisle, .	78	57	.73-07
227	Norton, .	227	180	.79-29	287	Harwich, .	396	288	.72-72
228	Revere, .	1,877	1,488	.79-27	288	New Ashford, .	22	16	.72-72
229	Sherborn, .	183	145	.79-23	289	Leverett, .	131	95	.72-51
230	Norfolk, .	154	122	.79-22	290	Woburn, .	3,189	2,309	.72-40
231	Cambridge, .	14,401	11,397	.79-14	291	Rowe, .	76	55	.72-36
232	Barnardston, .	124	98	.79-03	292	Plympton, .	65	47	.72-30
233	Hanson, .	200	158	.79-00	293	Dover, .	108	78	.72-22
234	New Braintree, .	80	63	.78-75	294	Mt. Wash'ton, .	25	18	.72-00
235	Enfield, .	211	166	.78-67	295	Otis, .	78	56	.71-79
236	Paxton, .	65	51	.78-46	296	Buckland, .	276	198	.71-73
237	Somerset, .	376	295	.78-45	297	Lakeville, .	138	99	.71-73
238	Granville, .	197	154	.78-17	298	Hawley, .	88	63	.71-59
239	Rochester, .	151	118	.78-14	299	Pelham, .	90	64	.71-11
240	Cottage City, .	160	125	.78-12	300	Deerfield, .	290	206	.71-03
241	Auburn, .	313	244	.77-95	301	Rowley, .	196	139	.70-91
242	Dartmouth, .	543	423	.77-90	302	Brimfield, .	123	87	.70-73
243	Savoy, .	95	74	.77-89	303	Wilbraham, .	273	193	.70-69
244	Northampton, .	2,844	2,215	.77-88	304	Boylston, .	133	94	.70-67
245	Watertown, .	1,244	968	.77-81	305	Richmond, .	143	101	.70-62
246	Gosnold, .	18	14	.77-77	306	Sandisfield, .	138	97	.70-28
247	Dracont, .	480	373	.77-70	307	Franklin, .	724	503	.70-16
248	Leyden, .	62	48	.77-41	308	Gill, .	130	91	.70-00
249	Palmer, .	1,150	890	.77-39	309	Westport, .	470	329	.70-00
250	Chelsea, .	5,771	4,459	.77-26	310	Wales, .	169	118	.69-82
251	Nantucket, .	403	311	.77-17	311	Raynham, .	231	161	.69-81
252	Swampscott, .	695	536	.77-12	312	Goshen, .	69	48	.69-56
253	Hancock, .	84	64	.76-21	313	Marlborough, .	3,287	2,269	.69-02
254	Salisbury, .	229	174	.75-98	314	Acushnet, .	184	127	.69-02
255	Tyringham, .	54	41	.75-92	315	Ware, .	1,386	952	.68-68
256	Chester, .	270	205	.75-92	316	Amesbury, .	1,660	1,136	.68-43
257	Hatfield, .	235	178	.75-74	317	Hys Park, .	2,190	1,492	.68-12
258	Greenwich, .	74	56	.75-67	318	Southampton, .	204	138	.67-64
259	Sheffield, .	315	238	.75-55	319	Lynnfield, .	159	107	.67-29
260	Windsor, .	90	68	.75-55	320	Spencer, .	1,724	1,157	.67-11

SCHOOL RETURNS.

cxix

TOWNS.					TOWNS.				
		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
321	Middleton, .	152	102	.67-10	338	Clarksburg, .	235	149	.63-40
322	Douglas, .	425	285	.67-05	339	Peru, .	61	38	.62-29
323	Becket, .	187	125	.66-84	340	Seekonk, .	274	170	.62-04
324	North Adams,	3,985	2,651	.66-52	341	Wendell, .	120	74	.61-66
325	Newburyport,	2,305	1,533	.66-50	342	Lawrence, .	9,816	6,048	.61-61
326	Waltham, .	3,704	2,462	.66-46	343	Dudley, .	553	333	.60-21
327	Fitchburg, .	5,342	3,546	.66-37	344	Ludlow, .	495	291	.58-78
328	Chicopee, .	2,769	1,822	.65-79	345	Salem, .	6,154	3,603	.58-54
329	Florida, .	90	59	.65-55	346	Sutton, .	678	394	.58-11
330	Burlington, .	89	58	.65-16	347	New Bedford,	11,439	6,600	.57-69
331	Canton, .	788	511	.64-84	348	Fall River, .	20,006	11,361	.56-78
332	Egremont, .	124	80	.64-51	349	Alford, .	31	17	.54-83
333	Lowell, .	14,432	9,307	.64-48	350	Holland, .	24	13	.54-16
334	Hardwick, .	484	310	.64-04	351	Holyoke, .	8,938	4,444	.49-72
335	N. Brookfield,	969	617	.63-67	352	Southbridge, .	1,708	816	.47-77
336	Berlin, .	186	118	.63-44	353	Webster, .	1,551	603	.38-87
337	Agawam, .	533	338	.63-41					

GRADUATED TABLES—THIRD SERIES.

[COUNTY TABLES.]

In which all the Towns in the respective Counties in the State are numerically arranged according to the AVERAGE ATTENDANCE of their Children upon the Public Schools for the Year 1897-98.

[For an explanation of the principles on which the Tables are constructed, see *ante*, p. cxv.]

BARNSTABLE COUNTY.

TOWNS.				TOWNS.			
	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1 Chatham, .	258	268	1.03-87	9 Bourne, .	314	286	.91-08
2 Dennis, .	381	386	1.01-03	10 Yarmouth, .	202	183	.90-59
3 Barnstable, .	620	626	1.00-96	11 Truro, .	155	137	.88-38
4 Sandwich, .	213	214	1.00-46	12 Orleans, .	178	152	.85-39
5 Falmouth, .	395	393	.99-49	13 Eastham, .	66	54	.81-81
6 Wellfleet, .	130	129	.99-23	14 Brewster, .	163	120	.73-61
7 Mashpee, .	58	57	.98-27	15 Harwich, .	396	288	.72-72
8 Provincetown, .	739	708	.95-80				

BERKSHIRE COUNTY.

1 Gt. Barrington, .	752	744	.98-93	17 Windsor, .	90	68	.75-55
2 Lenox, .	522	512	.98-08	18 Stockbridge, .	440	330	.75-00
3 Dalton, .	562	545	.96-97	19 New Marlboro', .	214	159	.74-29
4 Hinsdale, .	243	231	.95-06	20 Monterey, .	97	72	.74-22
5 Cheshire, .	179	165	.92-17	21 New Ashford, .	22	16	.72-72
6 W. Stockbridge, .	228	195	.85-52	22 Mt. Wash'gton, .	25	18	.72-00
7 Williamstown, .	808	686	.85-42	23 Otis, .	78	56	.71-79
8 Lee, .	604	508	.84-10	24 Richmond, .	143	101	.70-62
9 Pittsfield, .	3,946	3,306	.83-78	25 Sandisfield, .	138	97	.70-28
10 Adams, .	2,134	1,723	.80-74	26 Becket, .	187	125	.66-84
11 Lanesborough, .	133	107	.80-45	27 North Adams, .	3,985	2,651	.66-52
12 Washington, .	66	53	.80-30	28 Florida, .	90	59	.65-55
13 Savoy, .	95	74	.77-89	29 Egremont, .	124	80	.64-51
14 Hancock, .	84	64	.76-21	30 Clarksburg, .	235	149	.63-40
15 Tyringham, .	54	41	.75-92	31 Peru, .	61	38	.62-29
16 Sheffield, .	315	238	.75-55	32 Alford, .	31	17	.54-83

SCHOOL RETURNS.

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BRISTOL COUNTY.

TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1 Freetown, .	156	177	1.13-46	11 Norton, .	227	180	.79-29
2 Mansfield, .	660	631	.95-60	12 Somerset, .	376	295	.78-45
3 N. Attleboro', .	1,202	1,127	.93-76	13 Dartmouth, .	543	423	.77-90
4 Easton, .	841	756	.89-89	14 Taunton, .	5,005	3,714	.74-20
5 Berkley, .	136	120	.88-23	15 Westport, .	470	329	.70-00
6 Dighton, .	240	209	.87-08	16 Raynham, .	231	161	.69-81
7 Fairhaven, .	568	493	.86-79	17 Acushnet, .	184	127	.69-02
8 Attleborough, .	1,697	1,439	.84-79	18 Seekonk, .	274	170	.62-04
9 Swansea, .	243	200	.82-30	19 New Bedford, .	11,439	6,600	.57-69
10 Rehoboth, .	305	243	.79-67	20 Fall River, .	20,006	11,361	.56-78

DUKES COUNTY.

1 Tisbury, .	114	115	1.00-87	5 Cottage City, .	160	125	.78-12
2 Gay Head, .	33	32	.96-96	6 Gosnold, .	18	14	.77-77
3 West Tisbury, .	53	46	.86-79	7 Chilmark, .	30	22	.73-33
4 Edgartown, .	139	118	.84-89				

ESSEX COUNTY.

1 Marblehead, .	976	1,071	1.09-73	18 Hamilton, .	240	201	.83-75
2 Manchester, .	293	302	1.03-07	19 Methuen, .	1,188	986	.82-99
3 Essex, .	268	275	1.02-61	20 Lynn, .	10,297	8,300	.80-60
4 Merrimac, .	359	368	1.02-50	21 Swampscott, .	695	536	.77-12
5 Topsfield, .	132	135	1.02-27	22 Salisbury, .	229	174	.75-98
6 Nahant, .	109	109	1.00-00	23 Ipswich, .	818	616	.75-30
7 Gloucester, .	4,108	4,008	.97-56	24 Haverhill, .	5,819	4,289	.73-70
8 Danvers, .	1,356	1,321	.97-41	25 Peabody, .	1,996	1,468	.73-54
9 Saugus, .	897	850	.94-76	26 Newbury, .	247	181	.73-27
10 Georgetown, .	330	312	.94-54	27 Wenham, .	153	112	.73-20
11 Andover, .	941	886	.94-15	28 Rowley, .	196	139	.70-91
12 West Newbury, .	229	215	.93-89	29 Amesbury, .	1,660	1,136	.68-43
13 Groveland, .	400	372	.93-00	30 Lynnfield, .	159	107	.67-29
14 North Andover, .	754	674	.89-38	31 Middleton, .	152	102	.67-10
15 Rockport, .	769	683	.88-81	32 Newburyport, .	2,305	1,533	.66-50
16 Beverly, .	2,031	1,723	.84-83	33 Lawrence, .	9,816	6,048	.61-61
17 Boxford, .	92	78	.84-73	34 Salem, .	6,154	3,603	.58-54

FRANKLIN COUNTY.

1 Ashfield, .	114	147	1.28-94	7 Shutesbury, .	54	51	.94-44
2 Orange, .	953	1,001	1.05-03	8 Erving, .	197	181	.91-87
3 Conway, .	194	197	1.01-54	9 Monroe, .	45	40	.88-88
4 Charlemont, .	161	158	.98-13	10 Sunderland, .	96	82	.85-41
5 Greenfield, .	1,197	1,171	.97-82	11 Northfield, .	226	187	.82-74
6 Shelburne, .	228	217	.95-17	12 Heath, .	105	86	.81-90

FRANKLIN COUNTY—CONCLUDED.

TOWNS.		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15 expressed in decimals.	TOWNS.		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
13	Colrain, . .	290	234	.80-68	20	Leverett, . .	131	95	.72-51
14	Bernardston, .	124	98	.79-03	21	Rowe, . .	76	55	.72-36
15	Leyden, . .	62	48	.77-41	22	Buckland, . .	276	198	.71-73
16	Warwick, . .	102	77	.75-49	23	Hawley, . .	88	63	.71-59
17	Whately, . .	97	73	.75-25	24	Deerfield, . .	290	206	.71-03
18	Montague, . .	1,339	992	.74-08	25	Gill, . .	130	91	.70-00
19	New Salem, .	158	116	.73-41	26	Wendell, . .	120	74	.61-66

HAMPDEN COUNTY.

1	W. Springfield, .	1,253	1,259	1.00-47	13	Southwick, . .	201	150	.74-62
2	Blandford, . .	128	125	.97-65	14	Hampden, . .	106	79	.74-52
3	Monson, . .	589	574	.97-45	15	Longmeadow, .	101	75	.74-25
4	Westfield, . .	1,942	1,642	.84-55	16	Brimfield, . .	123	87	.70-73
5	Springfield, . .	8,814	7,318	.83-02	17	Wilbraham, . .	273	193	.70-69
6	Russell, . .	156	127	.81-41	18	Wales, . .	169	118	.69-82
7	Tolland, . .	57	46	.80-70	19	Chicopee, . .	2,769	1,822	.65-79
8	E. Longm'dow, .	350	278	.79-42	20	Agawam, . .	533	338	.63-41
9	Granville, . .	197	154	.78-17	21	Ludlow, . .	495	291	.58-78
10	Palmer, . .	1,150	890	.77-39	22	Holland, . .	24	13	.54-16
11	Chester, . .	270	205	.75-92	23	Holyoke, . .	8,938	4,444	.49-72
12	Montgomery, . .	49	37	.75-51					

HAMPSHIRE COUNTY.

1	Middlefield, . .	70	89	1.27-14	13	Belchertown, . .	488	400	.81-96
2	Prescott, . .	43	51	1.18-60	14	Westhampton, .	91	74	.81-31
3	Granby, . .	115	118	1.02-60	15	Hadley, . .	283	225	.79-60
4	Amherst, . .	644	638	.99-06	16	Enfield, . .	211	166	.78-67
5	South Hadley, .	768	736	.95-83	17	Northampton, .	2,844	2,215	.77-88
6	Easthampton, .	835	790	.94-61	18	Hatfield, . .	235	178	.75-74
7	Plainfield, . .	76	71	.93-42	19	Greenwich, . .	74	56	.75-67
8	Chesterfield, . .	81	73	.90-12	20	Pelham, . .	90	64	.71-11
9	Cummington, . .	116	104	.89-65	21	Goshen, . .	69	48	.69-56
10	Williamsburg, .	385	341	.88-57	22	Ware, . .	1,386	952	.68-68
11	Huntington, . .	292	245	.83-90	23	Southampton, .	204	138	.67-64
12	Worthington, . .	132	109	.82-57					

MIDDLESEX COUNTY.

1	Holliston, . .	363	411	1.13-22	7	Ayer, . .	387	404	1.04-39
2	Hopkinton, . .	433	467	1.07-85	8	Ashby, . .	115	120	1.04-34
3	Concord, . .	697	744	1.06-74	9	Littleton, . .	185	190	1.02-70
4	Arlington, . .	1,067	1,137	1.06-56	10	Natick, . .	1,538	1,574	1.02-34
5	Westford, . .	381	401	1.05-24	11	Dunstable, . .	51	52	1.01-96
6	Ashland, . .	328	343	1.04-57	12	Weston, . .	205	208	1.01-46

SCHOOL RETURNS.

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MIDDLESEX COUNTY — CONCLUDED.

TOWNS.				TOWNS.					
	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		
13	Melrose, . . .	2,065	2,078	1.00-62	34	North Reading, . . .	144	126	.87-50
14	Belmont, . . .	436	438	1.00-45	35	Groton, . . .	378	328	.86-80
15	Sudbury, . . .	156	156	1.00-00	36	Wilmington, . . .	284	246	.86-61
16	Acton, . . .	260	259	.99-61	37	Shirley, . . .	221	190	.85-97
17	Winchester, . . .	1,143	1,129	.98-77	38	Bedford, . . .	206	176	.85-43
18	Medford, . . .	2,678	2,617	.97-72	39	Malden, . . .	5,303	4,501	.84-87
19	Framingham, . . .	1,820	1,776	.97-58	40	Billerica, . . .	490	415	.84-69
20	Stoneham, . . .	970	938	.96-70	41	Stow, . . .	128	108	.84-37
21	Lincoln, . . .	143	138	.96-50	42	Tyngsborough, . . .	88	74	.84-09
22	Everett, . . .	3,713	3,576	.96-31	43	Newton, . . .	5,054	4,226	.83-61
23	Wakefield, . . .	1,563	1,497	.95-77	44	Sherborn, . . .	183	145	.79-23
24	Maynard, . . .	570	540	.94-73	45	Cambridge, . . .	14,401	11,397	.79-14
25	Hudson, . . .	911	859	.94-29	46	Watertown, . . .	1,244	968	.77-81
26	Lexington, . . .	543	508	.93-55	47	Dracut, . . .	480	373	.77-70
27	Pepperell, . . .	597	557	.93-29	48	Tewksbury, . . .	463	341	.73-65
28	Reading, . . .	864	802	.92-82	49	Carlisle, . . .	78	57	.73-07
29	Chelmsford, . . .	563	512	.90-94	50	Woburn, . . .	3,189	2,309	.72-40
30	Somerville, . . .	9,113	8,144	.89-36	51	Marlborough, . . .	3,287	2,269	.69-02
31	Wayland, . . .	422	377	.89-33	52	Waltham, . . .	3,704	2,462	.66-46
32	Townsend, . . .	281	249	.88-61	53	Burlington, . . .	89	58	.65-16
33	Boxborough, . . .	61	54	.88-52	54	Lowell, . . .	14,432	9,307	.64-48

NANTUCKET COUNTY.

Nantucket,	403	311	.77-17
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NORFOLK COUNTY.

1	Medfield, . . .	207	220	1.06-28	15	Avon, . . .	265	250	.94-33
2	Randolph, . . .	588	608	1.03-40	16	Foxborough, . . .	530	470	.88-67
3	Brookline, . . .	2,694	2,785	1.03-37	17	Milton, . . .	1,099	969	.88-17
4	Needham, . . .	644	659	1.02-32	18	Wellesley, . . .	669	579	.86-54
5	Dedham, . . .	1,166	1,181	1.01-28	19	Walpole, . . .	537	461	.85-84
6	Bellingham, . . .	242	244	1.00-82	20	Sharon, . . .	235	195	.82-97
7	Norwood, . . .	926	914	.98-70	21	Quincy, . . .	4,720	3,866	.81-90
8	Medway, . . .	468	459	.98-07	22	Norfolk, . . .	154	122	.79-22
9	Wrentham, . . .	450	438	.97-33	23	Westwood, . . .	130	98	.75-38
10	Cohasset, . . .	368	358	.97-28	24	Stoughton, . . .	867	645	.74-39
11	Braintree, . . .	938	908	.96-80	25	Dover, . . .	108	78	.72-22
12	Weymouth, . . .	1,871	1,810	.96-73	26	Franklin, . . .	724	508	.70-16
13	Holbrook, . . .	411	393	.95-62	27	Hyde Park, . . .	2,190	1,492	.68-12
14	Millis, . . .	174	165	.94-82	28	Canton, . . .	788	511	.64-84

PLYMOUTH COUNTY.

1	Whitman, . . .	849	936	1.10-24	4	Bridgewater, . . .	553	543	.98-19
2	Hanover, . . .	279	302	1.08-24	5	Abington, . . .	674	654	.97-03
3	Norwell, . . .	232	233	1.00-43	6	Hingham, . . .	635	613	.96-53

PLYMOUTH COUNTY — CONCLUDED.

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
7	Plymouth, .	1,326	1,275	.96-15	18	Pembroke, .	198	168	.84-84
8	Duxbury, .	245	235	.95-91	19	Wareham, .	575	481	.83-65
9	Rockland, .	960	913	.95-10	20	W. Bridgewater, .	263	220	.83-65
10	E. Bridgewater, .	456	429	.94-07	21	Scituate, .	400	325	.81-25
11	Kingston, .	308	286	.92-85	22	Hanson, .	200	158	.79-00
12	Carver, .	165	153	.92-72	23	Rochester, .	151	118	.78-14
13	Marshfield, .	246	225	.91-46	24	Halifax, .	84	63	.75-00
14	Middleboro', .	987	901	.91-28	25	Marion, .	160	118	.73-75
15	Mattapoisett, .	133	117	.87-96	26	Plympton, .	65	47	.72-30
16	Brockton, .	6,114	5,261	.86-04	27	Lakeville, .	138	99	.71-73
17	Hull, .	143	122	.85-31					

SUFFOLK COUNTY.

1	Winthrop, .	798	666	.83-45	3	Revere, .	1,877	1,488	.79-27
2	Boston, .	81,947	65,331	.79-72	4	Chelsea, .	5,771	4,459	.77-26

WORCESTER COUNTY.

1	W. Boylston, .	437	472	1.08-00	31	Barre, .	325	276	.84-92
2	Brookfield, .	470	505	1.07-44	32	Northborough, .	380	322	.84-73
3	Phillipston, .	55	58	1.05-45	33	Gardner, .	1,700	1,434	.84-35
4	Westborough, .	706	711	1.00-70	34	Bolton, .	126	106	.84-12
5	Holden, .	460	452	.98-26	35	Millbury, .	861	714	.82-92
6	Leominster, .	1,505	1,463	.97-20	36	Petersham, .	115	95	.82-60
7	Sterling, .	178	173	.97-19	37	Blackstone, .	763	630	.82-56
8	Hopedale, .	232	225	.96-98	38	Athol, .	1,070	876	.81-86
9	Mendon, .	138	131	.94-92	39	Dana, .	109	89	.81-65
10	Warren, .	664	627	.94-42	40	Royalston, .	125	102	.81-60
11	Milford, .	1,388	1,307	.94-16	41	Templeton, .	560	455	.81-25
12	Shrewsbury, .	246	230	.93-49	42	Starbridge, .	326	262	.80-36
13	Westminster, .	210	196	.93-33	43	Grafton, .	871	700	.80-36
14	Oxford, .	387	360	.93-02	44	Worcester, .	18,940	15,134	.79-90
15	Ashburnham, .	367	340	.92-64	45	New Braintree, .	80	63	.78-75
16	Winchendon, .	843	779	.92-40	46	Paxton, .	65	51	.78-46
17	Leicester, .	545	496	.91-00	47	Auburn, .	313	244	.77-95
18	Lunenburg, .	198	180	.90-90	48	Clinton, .	2,300	1,688	.73-39
19	Hubbardston, .	176	160	.90-90	49	Boylston, .	133	94	.70-67
20	Upton, .	290	261	.90-00	50	Spencer, .	1,724	1,157	.67-11
21	Rutland, .	195	174	.89-23	51	Douglas, .	425	285	.67-05
22	Princeton, .	120	106	.88-33	52	Fitchburg, .	5,342	3,546	.66-37
23	W. Brookfield, .	215	189	.87-90	53	Hardwick, .	484	310	.64-04
24	Northbridge, .	1,203	1,044	.86-78	54	N. Brookfield, .	969	617	.63-67
25	Uxbridge, .	582	503	.86-42	55	Berlin, .	186	118	.63-44
26	Charlton, .	297	254	.85-52	56	Dudley, .	553	333	.60-21
27	Oakham, .	103	88	.85-43	57	Sutton, .	678	394	.58-11
28	Harvard, .	149	127	.85-23	58	Southbridge, .	1,708	816	.47-77
29	Lancaster, .	392	334	.85-20	59	Webster, .	1,551	603	.38-87
30	Southborough, .	315	268	.85-07					

SCHOOL RETURNS.

CXXV

Table in which all the Counties are numerically arranged, according to the AVERAGE ATTENDANCE of their Children upon the Public Schools for the Year 1897-98.

For 1896-97.	For 1897-98.	COUNTIES.	Ratio of attendance.
2	1	Barnstable, . . . . .	.93-74
3	2	Plymouth, . . . . .	.90-66
5	3	Norfolk, . . . . .	.88-50
4	4	Franklin, . . . . .	.86-64
1	5	Dukes, . . . . .	.86-28
7	6	Middlesex, . . . . .	.84-80
6	7	Hampshire, . . . . .	.82-67
8	8	Suffolk, . . . . .	.79-59
9	9	Berkshire, . . . . .	.79-30
10	10	Worcester, . . . . .	.78-29
14	11	Nantucket, . . . . .	.77-17
11	12	Essex, . . . . .	.76-40
12	13	Hampden, . . . . .	.70-64
13	14	Bristol, . . . . .	.64-18
STATE, . . . . .			.79-10

GRADUATED TABLES — FOURTH SERIES.

The following table was made out for the first time in the fifty-ninth report. In the First Series of Graduated Tables, which is required to meet the purposes of section 5, chapter 43 of the Public Statutes, the sums appropriated by towns for each child between five and fifteen years of age are given in a comparative way, and the towns are classified according to such amounts. The facts presented in this First Series have been freely used by some towns as a lever for increasing their appropriations; by other towns, as a lever for reducing them. Inasmuch as in some towns and cities large numbers of children between five and fifteen are in private schools; inasmuch, also, as the proportions of those children between five and fifteen years of age who attend the public schools vary considerably, the children entering later and leaving earlier in some towns than in others, it follows that the division of the amount appropriated for the public schools by the number of all the children between five and fifteen, without reference to whether they are in the public schools or not, may yield results that cannot be fairly used for purposes of comparison, unless it is known from other sources that the conditions of public school attendance are the same.

Now the money appropriated for the public schools is expended upon those persons who attend them, whether they are within or without the limits of five and fifteen. It is determined more by the average membership than by any other factor. Consequently this Fourth Series is valuable for making known in a comparative way just how the towns stand in what they spend upon each person actually in attendance upon the public schools. It is not necessary to repeat in the Fourth Series the amounts raised by taxes for the support of public schools since they are the same as in the First Series.

GRADUATED TABLES—FOURTH SERIES.

[FOR THE STATE.]

A Graduated Table in which all the Towns in the State are numerically arranged according to the Comparative Amounts of Money appropriated by them for the Education of Each Child included in the Average Membership of the Public Schools.

For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.	For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.
1	Weston, . . .	222	\$46 73.8	45	Concord, . . .	802	\$23 80.1
2	Westwood, . . .	111	46 41.2	46	Somerville, . . .	8,589	23 72.2
3	Milton, . . .	1,047	39 00.1	47	Haverhill, . . .	4,611	23 42.5
4	Hull, . . .	131	38 16.7	48	Littleton, . . .	200	23 05.8
5	Nahant, . . .	118	37 54.9	49	Shelburne, . . .	232	23 03.4
6	Tyngsborough, . . .	80	36 25.6	50	Orleans, . . .	169	22 98.7
7	Sudbury, . . .	167	35 43.8	51	Hyde Park, . . .	1,614	22 96.2
8	Brookline, . . .	3,086	33 75.9	52	Stockbridge, . . .	354	22 95.4
9	Watertown, . . .	1,036	33 05.9	53	Barre, . . .	294	22 76.4
10	Wellesley, . . .	623	32 10.2	54	Dover, . . .	93	22 58.0
11	Falmouth, . . .	419	31 40.3	55	Dunstable, . . .	53	22 56.1
12	Newton, . . .	4,571	31 09.6	56	Revere, . . .	1,601	22 32.0
13	Lincoln, . . .	153	30 37.3	57	Bourne, . . .	306	22 09.6
14	Cohasset, . . .	397	30 05.7	58	Lawrence, . . .	6,344	22 08.8
15	Boston, . . .	73,128	28 64.4	59	Taunton, . . .	3,914	21 78.0
16	Holyoke, . . .	4,829	28 56.8	60	Raynham, . . .	180	21 76.5
17	Longmeadow, . . .	82	28 04.8	61	Swampscott, . . .	572	21 76.5
18	Lexington, . . .	539	27 95.0	62	Mattapoisett, . . .	130	21 73.4
19	Canton, . . .	541	27 51.3	63	Franklin, . . .	547	21 72.9
20	Petersham, . . .	102	26 88.3	64	Walpole, . . .	505	21 70.6
21	Medford, . . .	2,802	26 67.0	65	Sunderland, . . .	88	21 59.0
22	New Braintree, . . .	68	26 41.1	66	Wellfleet, . . .	139	21 58.2
23	Princeton, . . .	114	26 31.5	67	Lynn, . . .	9,003	21 41.3
24	Fitchburg, . . .	3,747	26 27.5	68	Ware, . . .	1,009	21 30.9
25	Belmont, . . .	500	26 10.7	69	Easton, . . .	815	21 21.0
26	Burlington, . . .	63	26 04.4	70	Ludlow, . . .	322	21 08.1
27	Cottage City, . . .	140	25 60.5	71	Bedford, . . .	190	20 99.5
28	Springfield, . . .	7,869	25 55.7	72	Deerfield, . . .	238	20 94.4
29	Malden, . . .	4,792	25 37.7	73	Abington, . . .	693	20 89.6
30	Lowell, . . .	10,067	25 15.5	74	Harvard, . . .	140	20 74.6
31	Yarmouth, . . .	195	25 12.8	75	Dracut, . . .	409	20 73.3
32	Salem, . . .	3,987	25 01.3	76	Bernardston, . . .	107	20 59.1
33	Manchester, . . .	309	25 00.9	77	North Brookfield, . . .	663	20 50.0
34	Waltham, . . .	2,605	24 94.0	78	Melrose, . . .	2,271	20 48.3
35	Hingham, . . .	683	24 78.2	79	Leicester, . . .	532	20 38.4
36	Cambridge, . . .	12,317	24 23.5	80	Foxborough, . . .	508	20 34.0
37	Dedham, . . .	1,267	24 22.6	81	Westfield, . . .	1,723	20 33.3
38	Barnstable, . . .	671	24 20.8	82	Wayland, . . .	407	20 32.6
39	Bridgewater, . . .	587	24 12.4	83	Framingham, . . .	1,883	20 32.2
40	North Reading, . . .	135	23 93.4	84	Upton, . . .	284	20 30.9
41	Arlington, . . .	1,225	23 90.7	85	Lenox, . . .	532	20 30.0
42	Winthrop, . . .	715	23 88.3	86	Quincy, . . .	4,033	20 26.8
43	Lancaster, . . .	355	23 85.1	87	Weymouth, . . .	1,944	20 13.1
44	Worcester, . . .	16,374	23 82.5	88	Plymouth, . . .	1,361	20 11.0

For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.	For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.
89	Brewster, . . .	132	\$20 06.6	151	Buckland, . . .	212	\$17 66.4
90	Sterling, . . .	187	20 05.7	152	Stoughton, . . .	693	17 65.9
91	Tisbury, . . .	128	20 03.3	153	Rowe, . . .	63	17 64.4
92	Sandwich, . . .	226	20 01.0	154	Athol, . . .	934	17 59.3
93	Whately, . . .	80	20 00.0	155	Wilmington, . . .	266	17 51.6
94	Hopedale, . . .	235	19 83.5	156	Leominster, . . .	1,587	17 48.0
95	Southborough, . . .	294	19 81.1	157	Warren, . . .	667	17 38.9
96	Dalton, . . .	578	19 72.3	158	Uxbridge, . . .	540	17 33.8
97	New Bedford, . . .	7,081	19 70.7	159	Fairhaven, . . .	553	17 20.9
98	Brocton, . . .	5,652	19 64.9	160	West Springfield, . . .	1,355	17 19.2
99	Northampton, . . .	2,340	19 52.4	161	Easthampton, . . .	833	17 19.0
100	Palmer, . . .	953	19 51.4	162	Chicopee, . . .	1,967	17 18.2
101	Winchester, . . .	1,249	19 40.4	163	Marion, . . .	125	17 17.5
102	Blackstone, . . .	682	19 33.3	164	Washington, . . .	62	17 16.1
103	Sherborn, . . .	159	19 32.3	165	Hanson, . . .	181	17 13.4
104	Merrimac, . . .	384	19 29.6	166	Southbridge, . . .	870	17 13.1
105	Webster, . . .	635	19 27.6	167	Randolph, . . .	654	17 12.9
106	Spencer, . . .	1,217	19 22.8	168	Avon, . . .	273	17 12.4
107	Scituate, . . .	351	19 20.8	169	Attleborough, . . .	1,569	17 08.1
108	Northfield, . . .	200	19 14.6	170	Shutesbury, . . .	59	17 06.0
109	Andover, . . .	966	18 99.9	171	Norton, . . .	200	17 03.8
110	Marshfield, . . .	242	18 99.8	172	Beverly, . . .	1,885	17 03.6
111	Peabody, . . .	1,600	18 98.2	173	Granville, . . .	167	17 01.9
112	Shrewsbury, . . .	247	18 96.3	174	Monson, . . .	611	16 99.7
113	Tewksbury, . . .	375	18 76.8	175	Montague, . . .	1,029	16 95.1
114	Acton, . . .	275	18 76.4	176	Pittsfield, . . .	3,565	16 94.7
115	Townsend, . . .	267	18 72.6	177	Phillipston, . . .	65	16 92.3
116	Greenfield, . . .	1,258	18 71.7	178	Wilbraham, . . .	214	16 91.5
117	Wrentham, . . .	477	18 68.3	179	Duxbury, . . .	255	16 84.8
118	Kingston, . . .	312	18 60.0	180	Millis, . . .	173	16 82.4
119	North Adams, . . .	2,846	18 57.4	181	West Brookfield, . . .	200	16 81.4
120	Everett, . . .	3,789	18 55.3	182	Medfield, . . .	239	16 73.6
121	Dighton, . . .	233	18 54.2	183	Mendon, . . .	141	16 71.8
122	Grafton, . . .	777	18 52.5	184	Dudley, . . .	351	16 62.0
123	Swansea, . . .	223	18 47.8	185	Pepperell, . . .	597	16 61.6
124	Fall River, . . .	12,467	18 47.2	186	Clinton, . . .	1,776	16 59.0
125	Woburn, . . .	2,536	18 46.1	187	Marlborough, . . .	2,484	16 45.6
126	Westport, . . .	374	18 45.8	188	Westborough, . . .	745	16 44.8
127	North Andover, . . .	721	18 44.6	189	Needham, . . .	711	16 44.7
128	Reading, . . .	851	18 41.8	190	Northborough, . . .	357	16 42.3
129	Whitman, . . .	989	18 36.4	191	Hubbardston, . . .	171	16 37.4
130	No. Attleborough, . . .	1,217	18 31.1	192	Lee, . . .	544	16 35.0
131	Danvers, . . .	1,413	18 29.0	193	Ashland, . . .	363	16 33.8
132	Middleborough, . . .	968	18 25.6	194	Holden, . . .	482	16 33.3
133	Tyringham, . . .	46	18 23.3	195	Billerica, . . .	446	16 33.1
134	Braintree, . . .	987	18 18.3	196	Harwich, . . .	320	16 31.9
135	Boxford, . . .	88	18 18.1	197	Topsfield, . . .	147	16 27.0
136	Chelsea, . . .	4,847	18 16.1	198	Dennis, . . .	408	16 24.7
137	Sharon, . . .	215	18 15.3	199	Williamstown, . . .	741	16 24.7
138	Holbrook, . . .	424	18 14.0	200	Rockland, . . .	993	16 19.8
139	Hanover, . . .	318	18 13.1	201	Nantucket, . . .	329	16 19.3
140	Amherst, . . .	679	18 11.1	202	Hudson, . . .	916	16 17.5
141	Sturbridge, . . .	278	18 05.5	203	Lynnfield, . . .	113	16 15.0
142	Stoneham, . . .	983	18 03.4	204	Medway, . . .	477	16 14.2
143	Norfolk, . . .	132	18 01.5	205	West Bridgewater, . . .	241	16 14.1
144	Hardwick, . . .	330	18 01.0	206	Carlisle, . . .	62	16 12.9
145	Wakefield, . . .	1,597	17 92.9	207	East Bridgewater, . . .	456	16 11.3
146	Ipswich, . . .	678	17 88.8	208	Bellingham, . . .	261	16 09.6
147	Groton, . . .	410	17 86.5	209	Holland, . . .	14	16 07.1
148	Holliston, . . .	435	17 82.0	210	Milford, . . .	1,361	16 06.5
149	Hopkinton, . . .	506	17 78.6	211	Bolton, . . .	118	16 06.1
150	West Boylston, . . .	506	17 69.6	212	Greenwich, . . .	61	16 04.2

SCHOOL RETURNS.

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For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.	For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.
213	Wareham, . . .	521	\$16 02.6	275	Groveland, . . .	394	\$13 80.2
214	Montgomery, . . .	40	16 00.0	276	Plympton, . . .	58	13 79.3
215	Brookfield, . . .	536	15 99.9	277	Prescott, . . .	58	13 79.3
216	Chilmark, . . .	23	15 98.9	278	Acushnet, . . .	148	13 76.4
217	Amesbury, . . .	1,170	15 98.0	279	Orange, . . .	1,045	13 75.7
218	Marblehead, . . .	1,181	15 96.9	280	Lunenburg, . . .	191	13 70.5
219	Newburyport, . . .	1,633	15 92.0	281	Richmond, . . .	113	13 69.3
220	Norwood, . . .	963	15 83.1	282	Alford, . . .	22	13 63.6
221	Cheshire, . . .	177	15 81.9	283	Hinsdale, . . .	263	13 49.8
222	Saugus, . . .	912	15 74.0	284	Auburn, . . .	274	13 35.0
223	Middleton, . . .	117	15 73.0	285	Templeton, . . .	492	13 32.9
224	Gardner, . . .	1,546	15 72.4	286	Wenham, . . .	119	13 31.5
225	Westford, . . .	433	15 67.2	287	Ashburnham, . . .	368	13 31.5
226	West Stockbridge, . . .	217	15 66.8	288	Sutton, . . .	438	13 27.7
227	Lanesborough, . . .	115	15 65.2	289	Shirley, . . .	210	13 29.6
228	Blandford, . . .	139	15 63.2	290	Paxton, . . .	61	13 23.9
229	Hampden, . . .	88	15 58.4	291	Leyden, . . .	53	13 20.7
230	West Newbury, . . .	234	15 57.6	292	Hatfield, . . .	203	13 20.4
231	Boylston, . . .	106	15 56.6	293	Warwick, . . .	85	12 94.1
232	Hamilton, . . .	216	15 53.1	294	Boxborough, . . .	56	12 73.2
233	Natick, . . .	1,682	15 52.8	295	Stow, . . .	116	12 71.0
234	Adams, . . .	1,808	15 51.0	296	Provincetown, . . .	749	12 68.3
235	Douglas, . . .	328	15 44.5	297	Halifax, . . .	71	12 67.6
236	Georgetown, . . .	337	15 44.4	298	Salisbury, . . .	198	12 66.6
237	Great Barrington, . . .	862	15 44.2	299	Westhampton, . . .	79	12 65.8
238	Wales, . . .	131	15 42.9	300	Rehoboth, . . .	274	12 64.5
239	Oxford, . . .	385	15 28.4	301	Mashpee, . . .	62	12 63.0
240	Newbury, . . .	223	15 28.0	302	Pembroke, . . .	183	12 50.1
241	Carver, . . .	169	15 21.0	303	Lakeville, . . .	112	12 46.5
242	Norwell, . . .	258	15 12.0	304	Chesterfield, . . .	79	12 37.1
243	Oakham, . . .	93	15 09.6	305	Otis, . . .	65	12 30.7
244	Mansfield, . . .	675	15 01.1	306	Charlemont, . . .	170	12 15.2
245	Eastham, . . .	60	15 00.0	307	Hawley, . . .	70	12 14.2
246	South Hadley, . . .	783	14 95.6	308	Rutland, . . .	194	12 10.8
247	Ashfield, . . .	156	14 95.2	309	Granby, . . .	134	11 94.0
248	Westminster, . . .	214	14 92.4	310	Truro, . . .	148	11 91.2
249	Rockport, . . .	713	14 90.6	311	Berkley, . . .	135	11 85.1
250	Somerset, . . .	328	14 90.0	312	Essex, . . .	297	11 78.4
251	Gloucester, . . .	4,122	14 89.3	313	New Salem, . . .	128	11 71.8
252	Millbury, . . .	755	14 83.2	314	Seekonk, . . .	201	11 71.8
253	Brimfield, . . .	102	14 80.3	315	Royalston, . . .	113	11 63.7
254	Rowley, . . .	153	14 74.3	316	Erving, . . .	188	11 49.6
255	Dartmouth, . . .	468	14 67.5	317	Peru, . . .	47	11 45.4
256	Methuen, . . .	1,111	14 66.0	318	Becket, . . .	142	11 27.8
257	Conway, . . .	219	14 61.1	319	Windsor, . . .	76	11 24.8
258	Chelmsford, . . .	552	14 63.8	320	Southwick, . . .	160	11 21.0
259	Enfield, . . .	176	14 63.0	321	East Longmeadow, . . .	306	10 99.9
260	Chatham, . . .	299	14 56.5	322	Sandisfield, . . .	110	10 98.5
261	Gill, . . .	100	14 50.0	323	Winchendon, . . .	819	10 93.4
262	Agawam, . . .	375	14 49.6	324	Egremont, . . .	92	10 81.3
263	Sheffield, . . .	270	14 28.0	325	Tolland, . . .	56	10 71.4
264	West Tisbury, . . .	53	14 27.2	326	Freetown, . . .	214	10 65.7
265	Maynard, . . .	569	14 24.5	327	Wendell, . . .	79	10 63.1
266	Colrain, . . .	259	14 12.1	328	Rochester, . . .	144	10 57.2
267	Hadley, . . .	248	14 00.8	329	Russell, . . .	142	10 56.3
268	Ashby, . . .	129	13 95.3	330	Dana, . . .	98	10 39.1
269	Monroe, . . .	43	13 95.3	331	Belchertown, . . .	436	10 32.1
270	Edgartown, . . .	130	13 91.7	332	Southampton, . . .	158	10 24.1
271	Florida, . . .	72	13 88.8	333	Heath, . . .	92	10 09.2
272	Charlton, . . .	285	13 86.7	334	Berlin, . . .	128	10 02.3
273	Northbridge, . . .	1,094	13 84.1	335	Hancock, . . .	75	10 00.0
274	Ayer, . . .	426	13 83.1	336	Huntington, . . .	271	9 98.5

BOARD OF EDUCATION.

For 1897-98.	TOWNS.	Average membership of the public schools	Sum appropriated for each child.	For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.
337	Chester, . .	223	\$9 64.1	346	New Ashford, .	19	\$7 42.1
338	Williamsburg, .	379	9 62.7	347	Pelham, . .	75	6 94.0
339	Leverett, . .	104	9 51.5	348	Cummington, .	106	6 64.3
340	Monterey, . .	79	9 47.5	349	Clarksburg, .	167	6 39.9
341	New Marlborough,	184	9 02.5	350	Plainfield, . .	86	6 26.6
342	Savoy, . . .	87	9 00.1	351	Gosnold, . .	16	6 25.0
343	Middlefield, . .	95	8 74.7	352	Mt. Washington, .	21	5 47.6
344	Worthington, .	122	8 49.8	353	Gay Head, . .	40	2 47.5
345	Goshen, . . .	53	7 54.7				

GRADUATED TABLES — FOURTH SERIES.

[COUNTY TABLES.]

In which all the Towns in the respective Counties in the State are numerically arranged according to the Comparative Amounts of Money appropriated by them for the Education of Each Child included in the Average Membership of the Public Schools.

BARNSTABLE COUNTY.

For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.	For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.
1	Falmouth, . .	419	\$31 40.3	9	Harwich, . .	320	\$16 31.9
2	Yarmouth, . .	195	25 12.8	10	Dennis, . .	408	16 24.7
3	Barnstable, . .	671	24 20.8	11	Eastham, . .	60	15 00.0
4	Orleans, . .	169	22 98.7	12	Chatham, . .	299	14 56.5
5	Bourne, . .	306	22 09.6	13	Provincetown, .	749	12 68.3
6	Wellfleet, . .	139	21 58.2	14	Mashpee, . .	62	12 63.0
7	Brewster, . .	132	20 06.6	15	Truro, . .	148	11 91.2
8	Sandwich, . .	226	20 01.0				

BERKSHIRE COUNTY.

1	Stockbridge, . .	354	\$22 95.4	17	Richmond, . .	113	\$13 69.3
2	Lenox, . .	532	20 30.0	18	Alford, . .	22	13 63.6
3	Dalton, . .	578	19 72.3	19	Hinsdale, . .	263	13 49.8
4	North Adams, .	2,846	18 57.4	20	Otis, . .	65	12 30.7
5	Tyringham, . .	46	18 23.3	21	Peru, . .	47	11 45.4
6	Washington, . .	62	17 16.1	22	Becket, . .	142	11 27.8
7	Pittsfield, . .	3,565	16 94.7	23	Windsor, . .	76	11 24.8
8	Lee, . .	544	16 35.0	24	Sandisfield, . .	110	10 98.5
9	Williamstown, .	741	16 24.7	25	Egremont, . .	92	10 81.3
10	Cheshire, . .	177	15 81.9	26	Hancock, . .	75	10 00.0
11	West Stockbridge, .	217	15 66.8	27	Monterey, . .	79	9 47.5
12	Lanesborough, .	115	15 65.2	28	New Marlborough, .	184	9 02.5
13	Adams, . .	1,808	15 51.0	29	Savoy, . .	87	9 00.1
14	Great Barrington, .	862	15 44.2	30	New Ashford, . .	19	7 42.1
15	Sheffield, . .	270	14 28.0	31	Clarksburg, . .	167	6 39.9
16	Florida, . .	72	13 88.8	32	Mt. Washington, .	21	5 47.6

BRISTOL COUNTY.

1	Taunton, . .	3,914	\$21 78.0	5	Dighton, . .	233	\$18 54.2
2	Raynham, . .	180	21 76.5	6	Swansea, . .	223	18 47.8
3	Easton, . .	815	21 21.0	7	Fall River, . .	12,467	18 47.2
4	New Bedford, . .	7,081	19 70.7	8	Westport, . .	374	18 45.8

BRISTOL COUNTY — CONCLUDED.

For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.	For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.
9	North Attleborough,	1,217	\$18 31.1	15	Dartmouth, . .	468	\$14 67.5
10	Fairhaven, . .	553	17 20.9	16	Acushnet, . .	148	13 76.4
11	Attleborough, .	1,569	17 08.1	17	Rehoboth, . .	274	12 64.5
12	Norton, . .	200	17 03.8	18	Berkley, . .	135	11 85.1
13	Mansfield, . .	675	15 01.1	19	Seekonk, . .	201	11 71.8
14	Somerset, . .	328	14 90.0	20	Freetown, . .	214	10 65.7

DUKES COUNTY.

1	Cottage City, .	140	\$25 60.5	5	Edgartown, . .	130	\$13 91.7
2	Tisbury, . .	128	20 03.3	6	Gosnold, . .	16	6 25.0
3	Chilmark, . .	23	15 98.9	7	Gay Head, . .	40	2 47.5
4	West Tisbury, .	53	14 27.2				

ESSEX COUNTY.

1	Nahant, . .	118	\$37 54.9	18	Amesbury, . .	1,170	\$15 98.0
2	Salem, . .	3,987	25 01.3	19	Marblehead, .	1,181	15 96.6
3	Manchester, .	309	25 00.9	20	Newburyport, .	1,633	15 92.0
4	Haverhill, .	4,611	23 42.5	21	Saugus, . .	912	15 74.0
5	Lawrence, .	6,344	22 08.8	22	Middleton, .	117	15 73.0
6	Swampscott, .	572	21 76.5	23	West Newbury, .	234	15 57.6
7	Lynn, . .	9,003	21 41.3	24	Hamilton, . .	216	15 53.1
8	Merrimac, .	384	19 29.6	25	Georgetown, .	337	15 44.4
9	Andover, . .	966	18 99.9	26	Newbury, . .	223	15 28.0
10	Peabody, . .	1,600	18 98.2	27	Rockport, . .	713	14 90.6
11	North Andover, .	721	18 44.6	28	Gloucester, . .	4,122	14 89.3
12	Danvers, . .	1,413	18 29.0	29	Rowley, . .	153	14 74.3
13	Boxford, . .	88	18 18.1	30	Methuen, . .	1,111	14 66.0
14	Ipswich, . .	678	17 88.8	31	Groveland, . .	394	13 80.2
15	Beverly, . .	1,885	17 03.6	32	Wenham, . .	119	13 31.5
16	Topsfield, . .	147	16 27.0	33	Salisbury, . .	198	12 66.6
17	Lynnfield, . .	113	16 15.0	34	Essex, . .	297	11 78.4

FRANKLIN COUNTY.

1	Shelburne, . .	232	\$23 03.4	14	Gill, . .	100	\$14 50.0
2	Sunderland, .	88	21 59.0	15	Colrain, . .	259	14 12.1
3	Deerfield, . .	238	20 94.4	16	Monroe, . .	43	13 95.3
4	Bernardston, .	107	20 59.1	17	Orange, . .	1,045	13 75.7
5	Whately, . .	80	20 00.0	18	Leyden, . .	53	13 20.7
6	Northfield, .	200	19 14.6	19	Warwick, . .	85	12 94.1
7	Greenfield, .	1,258	18 71.7	20	Charlemont, .	170	12 15.2
8	Buckland, . .	212	17 66.4	21	Hawley, . .	70	12 14.2
9	Rowe, . .	63	17 64.4	22	New Salem, .	128	11 71.8
10	Shutesbury, .	59	17 06.0	23	Erving, . .	188	11 49.6
11	Montague, . .	1,029	16 95.1	24	Wendell, . .	79	10 63.1
12	Ashfield, . .	156	14 95.2	25	Heath, . .	92	10 09.2
13	Conway, . .	219	14 61.1	26	Leverett, . .	104	9 51.5

SCHOOL RETURNS.

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HAMPDEN COUNTY.

For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.	For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.
1	Holyoke, . . .	4,829	\$28 56.8	13	Montgomery, . . .	40	\$16 00.0
2	Longmeadow, . . .	82	28 04.8	14	Blandford, . . .	139	15 63.2
3	Springfield, . . .	7,869	25 55.7	15	Hampden, . . .	83	15 58.4
4	Ludlow, . . .	322	21 08.1	16	Wales, . . .	131	15 42.9
5	Westfield, . . .	1,723	20 33.3	17	Brimfield, . . .	102	14 80.3
6	Palmer, . . .	953	19 51.4	18	Agawam, . . .	375	14 49.6
7	West Springfield, . . .	1,355	17 19.2	19	Southwick, . . .	160	11 21.0
8	Chicopee, . . .	1,967	17 18.2	20	East Longmeadow, . . .	306	10 99.9
9	Granville, . . .	167	17 01.9	21	Tolland, . . .	56	10 71.4
10	Monson, . . .	611	16 99.7	22	Russell, . . .	142	10 56.3
11	Wilbraham, . . .	214	16 91.5	23	Chester, . . .	223	9 64.1
12	Holland, . . .	14	16 07.1				

HAMPSHIRE COUNTY

1	Ware, . . .	1,009	\$21 30.9	13	Granby, . . .	134	\$11 94.0
2	Northampton, . . .	2,340	19 52.4	14	Belchertown, . . .	436	10 32.1
3	Amherst, . . .	679	18 11.1	15	Southampton, . . .	158	10 24.1
4	Easthampton, . . .	833	17 19.0	16	Huntington, . . .	271	9 98.5
5	Greenwich, . . .	61	16 04.2	17	Williamsburg, . . .	379	9 62.7
6	South Hadley, . . .	783	14 95.6	18	Middlefield, . . .	95	8 74.7
7	Enfield, . . .	176	14 63.0	19	Worthington, . . .	122	8 49.8
8	Hadley, . . .	248	14 00.8	20	Goshen, . . .	53	7 54.7
9	Prescott, . . .	58	13 79.3	21	Pelham, . . .	75	6 94.0
10	Hatfield, . . .	203	13 20.4	22	Cummington, . . .	106	6 64.3
11	Westhampton, . . .	79	12 65.8	23	Plainfield, . . .	86	6 26.6
12	Chesterfield, . . .	79	12 37.1				

MIDDLESEX COUNTY.

1	Weston, . . .	222	\$46 73.8	24	Wayland, . . .	407	\$20 32.6
2	Tyngsborough, . . .	80	36 25.6	25	Framingham, . . .	1,883	20 32.2
3	Sudbury, . . .	167	35 43.8	26	Sherborn, . . .	159	19 32.3
4	Watertown, . . .	1,036	33 05.9	27	Winchester, . . .	1,249	19 40.4
5	Newton, . . .	4,571	31 09.6	28	Tewksbury, . . .	375	18 76.8
6	Lincoln, . . .	153	30 37.3	29	Acton, . . .	275	18 76.4
7	Lexington, . . .	539	27 95.0	30	Townsend, . . .	267	18 72.6
8	Medford, . . .	2,802	26 67.0	31	Everett, . . .	3,789	18 55.3
9	Belmont, . . .	500	26 10.7	32	Woburn, . . .	2,536	18 46.1
10	Burlington, . . .	63	26 04.4	33	Reading, . . .	851	18 41.8
11	Malden, . . .	4,792	25 37.7	34	Stoneham, . . .	983	18 03.4
12	Lowell, . . .	10,067	25 15.5	35	Wakefield, . . .	1,597	17 92.9
13	Waltham, . . .	2,605	24 94.0	36	Groton, . . .	410	17 86.5
14	Cambridge, . . .	12,317	24 23.5	37	Holliston, . . .	435	17 82.0
15	North Reading, . . .	135	23 93.4	38	Hopkinton, . . .	506	17 78.6
16	Arlington, . . .	1,225	23 90.7	39	Wilmington, . . .	266	17 51.6
17	Concord, . . .	802	23 80.1	40	Pepperell, . . .	597	16 61.6
18	Somerville, . . .	8,589	23 72.2	41	Marlborough, . . .	2,484	16 45.6
19	Littleton, . . .	200	23 05.8	42	Ashland, . . .	363	16 33.8
20	Dunstable, . . .	53	22 56.1	43	Billerica, . . .	446	16 33.1
21	Bedford, . . .	190	20 99.5	44	Hudson, . . .	916	16 17.5
22	Dracut, . . .	409	20 73.3	45	Carlisle, . . .	62	16 12.9
23	Melrose, . . .	2,271	20 48.3	46	Westford, . . .	433	15 67.2

MIDDLESEX COUNTY — CONCLUDED.

For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.	For 1897-98.	TOWNS.	Average membership of the public schools.	Sum appropriated for each child.
47	Natick, . . .	1,682	\$15 52.8	51	Ayer, . . .	426	\$13 83.1
48	Chelmsford, . . .	552	14 63.8	52	Shirley, . . .	210	13 29.6
49	Maynard, . . .	569	14 24.5	53	Boxborough, . . .	56	12 73.2
50	Ashby, . . .	129	13 95.3	54	Stow, . . .	116	12 71.0

NANTUCKET COUNTY.

Nantucket,	329	\$16 19.3
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NORFOLK COUNTY.

1	Westwood, . . .	111	\$46 41.2	15	Wrentham, . . .	477	\$18 68.3
2	Milton, . . .	1,047	39 00.1	16	Braintree, . . .	987	18 18.3
3	Brookline, . . .	3,086	33 75.9	17	Sharon, . . .	215	18 15.3
4	Wellesley, . . .	623	32 10.2	18	Holbrook, . . .	424	18 14.0
5	Cohasset, . . .	397	30 05.7	19	Norfolk, . . .	132	18 01.5
6	Canton, . . .	541	27 51.3	20	Stoughton, . . .	693	17 65.8
7	Dedham, . . .	1,267	24 22.6	21	Randolph, . . .	654	17 12.9
8	Hyde Park, . . .	1,614	22 96.2	22	Avon, . . .	273	17 12.4
9	Dover, . . .	93	22 58.0	23	Millis, . . .	173	16 82.4
10	Franklin, . . .	547	21 72.9	24	Medfield, . . .	239	16 73.6
11	Walpole, . . .	505	21 70.6	25	Needham, . . .	711	16 44.7
12	Foxborough, . . .	508	20 34.0	26	Medway, . . .	477	16 14.2
13	Quincy, . . .	4,033	20 26.8	27	Bellingham, . . .	261	16 09.6
14	Weymouth, . . .	1,944	20 13.1	28	Norwood, . . .	963	15 83.1

PLYMOUTH COUNTY.

1	Hull, . . .	131	\$38 16.7	15	Hanson, . . .	181	\$17 13.4
2	Hingham, . . .	683	24 78.2	16	Duxbury, . . .	255	16 84.8
3	Bridgewater, . . .	587	24 12.4	17	Rockland, . . .	993	16 19.8
4	Mattapoisett, . . .	130	21 73.4	18	West Bridgewater, . . .	241	16 14.1
5	Abington, . . .	693	20 89.6	19	East Bridgewater, . . .	456	16 11.3
6	Plymouth, . . .	1,361	20 11.0	20	Wareham, . . .	521	16 02.6
7	Brocton, . . .	5,652	19 64.9	21	Carver, . . .	169	15 21.0
8	Scituate, . . .	351	19 20.8	22	Norwell, . . .	258	15 12.0
9	Marshfield, . . .	242	18 99.8	23	Plympton, . . .	58	13 79.3
10	Kingston, . . .	312	18 60.0	24	Halifax, . . .	71	12 67.6
11	Whitman, . . .	989	18 36.4	25	Pembroke, . . .	183	12 50.1
12	Middleborough, . . .	968	18 25.6	26	Lakeville, . . .	112	12 46.5
13	Hanover, . . .	318	18 13.1	27	Rochester, . . .	144	10 57.2
14	Marion, . . .	125	17 17.5				

SUFFOLK COUNTY.

1	Boston, . . .	73,128	\$28 64.4	3	Revere, . . .	1,601	\$22 32.0
2	Winthrop, . . .	715	23 88.3	4	Chelsea, . . .	4,847	18 16.1

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WORCESTER COUNTY.

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1	Petersham, . . .	102	\$26 88.3	31	Dudley, . . .	351	\$16 62.0
2	New Braintree, . .	68	26 41.1	32	Clinton, . . .	1,776	16 59.0
3	Princeton, . . .	114	26 31.5	33	Westborough, . .	745	16 44.8
4	Fitchburg, . . .	3,747	26 27.5	34	Northborough, . .	357	16 42.3
5	Lancaster, . . .	355	23 85.1	35	Hubbardston, . .	171	16 37.4
6	Worcester, . . .	16,374	23 82.5	36	Holden, . . .	482	16 33.3
7	Barre, . . .	294	22 76.4	37	Milford, . . .	1,361	16 06.5
8	Harvard, . . .	140	20 74.6	38	Bolton, . . .	118	16 06.1
9	North Brookfield, .	663	20 50.0	39	Brookfield, . . .	536	15 99.9
10	Leicester, . . .	532	20 38.4	40	Gardner, . . .	1,546	15 72.4
11	Upton, . . .	284	20 30.9	41	Boyiston, . . .	106	15 56.6
12	Sterling, . . .	187	20 05.7	42	Douglas, . . .	328	15 44.5
13	Hopedale, . . .	235	19 83.5	43	Oxford, . . .	385	15 28.4
14	Southborough, . .	294	19 81.1	44	Oakham, . . .	93	15 09.6
15	Blackstone, . . .	682	19 33.8	45	Westminster, . .	214	14 92.4
16	Webster, . . .	635	19 27.6	46	Millbury, . . .	755	14 83.2
17	Spencer, . . .	1,217	19 22.8	47	Charlton, . . .	285	13 86.7
18	Shrewsbury, . . .	247	18 96.3	48	Northbridge, . .	1,094	13 84.1
19	Grafton, . . .	777	18 52.5	49	Lunenburg, . . .	191	13 70.5
20	Sturbridge, . . .	278	18 05.5	50	Auburn, . . .	274	13 35.0
21	Hardwick, . . .	330	18 01.0	51	Templeton, . . .	492	13 32.9
22	West Boylston, . .	506	17 69.6	52	Ashburnham, . .	368	13 31.5
23	Athol, . . .	934	17 59.3	53	Sutton, . . .	438	13 27.7
24	Leominster, . . .	1,587	17 48.0	54	Paxton, . . .	61	13 23.9
25	Warren, . . .	667	17 38.9	55	Rutland, . . .	194	12 10.8
26	Uxbridge, . . .	540	17 33.8	56	Royalston, . . .	113	11 63.7
27	Southbridge, . . .	870	17 13.1	57	Winchendon, . .	819	10 93.4
28	Phillipston, . . .	65	16 92.3	58	Dana, . . .	98	10 39.1
29	West Brookfield, .	200	16 81.4	59	Berlin, . . .	128	10 02.3
30	Mendon, . . .	141	16 71.8				

GRADUATED TABLES—FOURTH SERIES.

Showing the Comparative Amount of Money, appropriated by the different Counties in the State for the Education of Each Child included in the Average Membership of the Public Schools.

For 1897-98.	COUNTIES.	Average membership of the public schools.	Sum appropriated for each child.
1	Suffolk,	80,291	\$27 84.3
2	Norfolk,	22,995	23 29.2
3	Middlesex,	78,817	22 88.5
4	Hampden,	21,868	22 79.6
5	Worcester,	46,944	20 04.1
6	Essex,	46,069	19 74.3
7	Barnstable,	4,303	19 58.4
8	Plymouth,	16,184	19 10.2
9	Bristol,	31,269	18 78.1
10	Dukes,	530	17 51.2
11	Berkshire,	14,351	16 53.6
12	Franklin,	6,357	16 29.0
13	Nantucket,	329	16 19.3
14	Hampshire,	8,463	16 08.2
STATE,		378,770	\$22 16.6

GRADUATED TABLES — FOURTH SERIES.

Showing the Comparative Amount of Money, including Voluntary Contributions, appropriated by the different Counties in the State for the Education of Each Child included in the Average Membership of the Public Schools.

For 1897-98.	COUNTIES.	Sum appropriated for each child.
1	Suffolk,	\$27 84.4
2	Norfolk,	23 40.0
3	Middlesex,	23 03.3
4	Hampden,	22 91.8
5	Berkshire,	21 51.0
6	Worcester,	20 08.7
7	Essex,	19 74.7
8	Barnstable,	19 58.4
9	Plymouth,	19 13.3
10	Bristol,	18 79.2
11	Dukes,	17 71.4
12	Franklin,	16 29.1
13	Nantucket,	16 19.3
14	Hampshire,	16 13.0
STATE,		\$22 40.9

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